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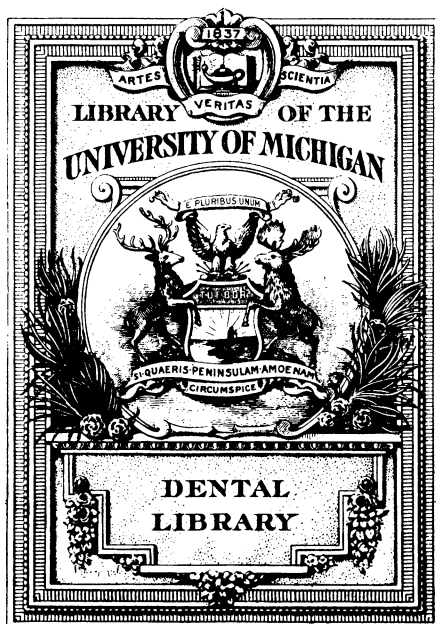
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PROGRESSIVE COURSE OF PRACTICAL INSTRUCTION

ORTHODONTIA.

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CHAPTER XI.

TREATMENT OF SIMPLE CASES.

In taking up the treatment of the different forms of malocclusion, it is essential that we consider the most common forms that would come under the head of simple treatment. Merely for a term, we will call them simple or easy cases. No cases are easy; they all require thought and good work. Many a dentist has made a dismal failure on the so-called easy cases. I once asked a student who had been under me in college and who had been out two years if he had done any orthodontia work. "Oh, yes," he said. "Many?" I asked. "Oh, couple dozen," he replied. This man ought to be famous for his rapidity of work; so far he has not been heard from, and I suppose he is still doing his "couple dozen" a year.

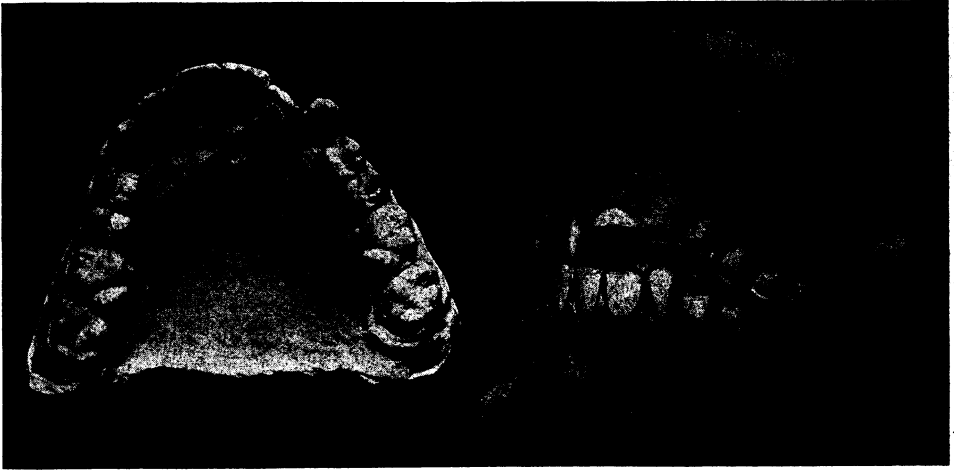
One of the most common simple forms that we have for treatment is where the lateral is in lingual occlusion (Fig. 1). In the treatment of all cases we want a safe, sure and direct method, if it is possible to secure it; the safest and best method may not always be the most comfortable. However, in the moving of a lateral outward to normal occlusion, I would advise the use of the jack-screw if the case is favorable. What do we mean by favorable? If the space between the central and cuspid has closed up it is not favorable for a jack-screw, and it is necessary to gain sufficient space so that the lateral may be moved forward without rotating it. Perhaps it can be done with the appliance shown in B, Fig. 2, in combination with the jack-screw, A, Fig. 2, as shown in Fig. 3, or it may be necessary in extreme cases to put on the wire arch and expand the anterior portion of the arch laterally to gain space for the lateral. Now a

jack-screw running across the roof of the mouth is not only uncomfortable for the tongue in conversation, but in mastication as well. And then, again, it is subjected to extra stress of mastication, hence it is absolutely necessary to have this appliance secured firmly in position. To secure this firmness for the anchorage, make bands for the second bicuspid and first molar. These bands should be pinched up on the buccal side, soldered, and then the ends cut off. Solder the bands together and replace, then take a long piece of tubing and mark the place for soldering on in the right direction of the lateral. It is best to have this tubing long enough to almost touch the lateral, as later it can be cut off the right length when desired. Now solder the tubing to the mesio-lingual surface of the molar band, shown in Fig. 4. Then try on again and see if it points in the right direction;

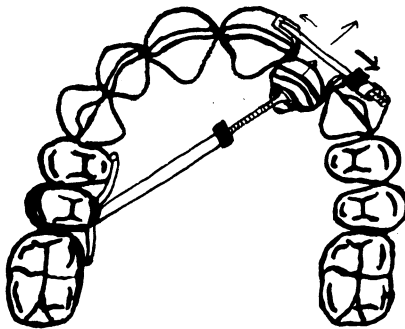


the jack-screw must not be in a strained position when all is finally placed on. Now make the band for the lateral, then take a piece of tubing about one-sixteenth of an inch in length, flatten this with the pliers until the opening is flat and oval. On account of the inverted V-shape of the tooth you will have to grind one end of this short tubing on a slant, so when the short tube is placed against the surface of the lateral band it will point straight outward toward the tubing on the anchor bands. Try on for position, mark it, then solder. It may have to be changed several times to get the exact position. Be careful not to use too much solder, as you will be liable to fill the short tube with solder; if you do, ream it out with a bur. Next flatten the head of the jack-screw so it fits the flat oval opening of the short tubing on the lateral. The flat head of the jack-screw fitted into the flat opening of the tube on the lateral pre-

vents all possibility of the jack-screw turning. Insert the screw of the jack into the long tubing and try all on for proper length and position. When cementing this appliance on, it is my custom to place

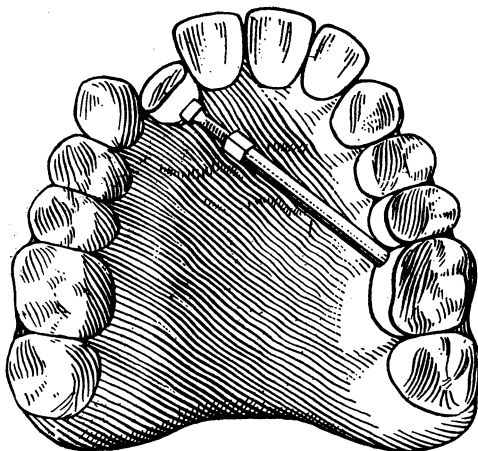


the head of the jack in the tube on the lateral and slip all on at once, cementing the anchor and the lateral band at the same time. Make this appliance snug, but no pressure. Do not put on any pressure until the next day, as you are liable to start the cement if tightened up at once. After about three visits, two days apart, I give the



patient a wrench and advise them to give the nut one turn every night and to call every three days. Most every patient will at once take a new interest in the work if some responsibility is placed upon them for the progress of the case. From ten days to

three weeks is about the average time for the movement of a lateral, but in some cases it may take longer. Supposing the space for moving the lateral outward was too narrow for the use of the jack-screw alone without rotating the lateral as it is squeezed forward. Then we would use in combination with the jack-screw the long band with a short threaded wire, acting on the principle of jack-screw in front, as shown in Fig. 3. To make this appliance, take a piece of extra broad banding material, about 37 gauge. At the place where this



band will come against the short tubing on the lateral band flow solder all over the part; this is to stiffen and give strength after you cut a hole in the long band. With drills and burs, cut this hole in the long band, so when you slip it on over the short tubing on the lateral it fits snug. Next pass one end around and lap it over the lingual surface of the central and the other to lap over the lingual surface of the cuspid; draw up tight and burnish to position; allow the ends to be burnished upward toward the gingival, as it will have a tendency to keep the appliances from slipping downward toward the cutting edge; cut off the ends, leaving about one-eighth inch in length. To one end solder the threaded screw, to the other end solder a very short tubing, far enough in toward the lateral to allow the nut to turn without striking the band. If the threaded end is very long, cut off as much as you can, then bend the remaining end around to conform to the teeth. In order to bend this well, it is best

to anneal the screw before placing the appliances in position. Some little trouble may occur at first to make this a neat appliance and to put it on in proper position. The best way is to slip the opening over the short tubing on the lateral first and then gradually work the other part up to position.

In the case of Fig. 5, the same jack-screw was used for moving out both laterals. The jack-screw was used on one side. When the tooth was out in position it was retained and then the same jack



was used on the other lateral, only making new anchor bands. Of course, in a case of this kind it would be very easy to put on the wire arch around the outside and move both laterals out at the same time. About the same time is consumed. In another case, exactly like this, it perhaps would be a matter of individual taste as to which appliance would be used.

(To be continued.)

PROSTHETIC DENTISTRY.

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CHAPTER XXX.

The profession has been striving for more than a half century to avoid repair work in both crown and bridge cases. The preceding methods indicate a variety of ideas along this interesting prosthetic line.

The tooth known as the "Dentenax" (hold-fast-tooth) was invented in the hope that repair work might be made obsolete; and the merit of this tooth its construction has found many advocates in England. This tooth form, Fig. 1, was on sale in America for some few years, but did not receive that support which it deserved.

The teeth are so constructed that the porcelain is not only protected from severe strain from the manner of the platinum base, but there is a liberal amount of porcelain surrounding the platinum so as to insure stability to both porcelain and platinum. Figs. 1 and 2 demonstrate the ideal method employed in combining the porcelain and metal, while Fig. 3 shows with the contact surface of the porcelain is ground away to admit of metallic backing. The extending anchor bar after the gold backing is cut or bifurcated and the two ends are bent in opposite directions over and across the gold or platinum backing, Figs. 4 and 6. The molar teeth, Fig. 5, are constructed on the same plan and soldered to a gold cope, though they can be cemented into position and save the tooth, being subjected to fire. Fig. 7 gives a view of the contact surface of a flat molar, or what is known as a short-shut-tooth. Fig. 8 illustrates a lingual view of a bicuspid, showing how the gold backing extends up on the porcelain to assist in preventing lateral yielding of the tooth. In Fig. 9 we see these teeth as they appear in an assembled case. In the centrals we have an approximation to the Logan crown. There is no metal backing and this gives the artificial substitute a life-like translucency which makes it an excellent tooth to employ in labial cases. These teeth can be readily adjusted to individual crowns, assembled cases, or used in connection with plate dentures. In my estimation, the Dentenax teeth are the only teeth which can be purchased and

give results which harmonize with the prevailing tendency of constructing artificial dentures with porcelain as its distinctive characteristic.

The difficulty with these English teeth—like other English bakes—is that their occlusal surfaces do not present the correct anatomical outlines. The cusps are indistinct and general contour of the tooth is abnormal.

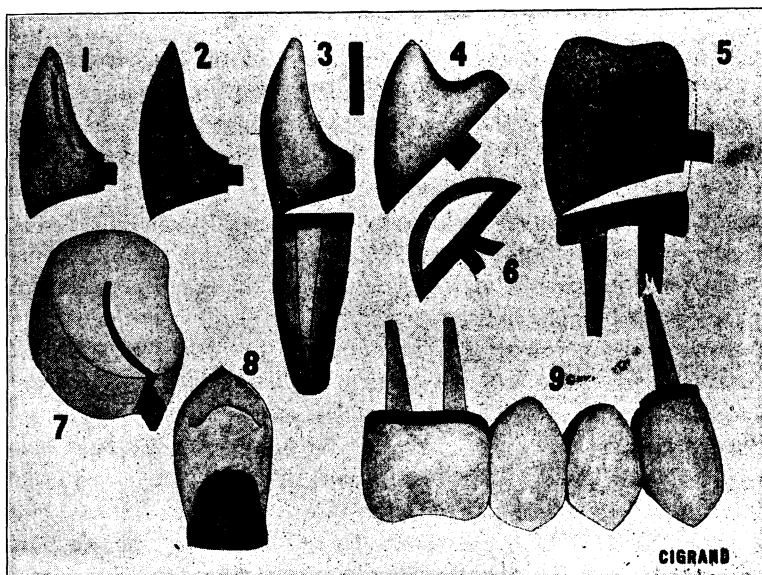


Diagram H represents the method of Dr. F. N. Brown. This tooth is not on the market, but has involved in it merits deserving consideration.

The inventor, Dr. Brown, says of it: "A certain amount of platinum is absolutely necessary for the retention of the porcelain facing in the assemblage of united crowns, which we term a bridge. If we have simply the ordinary gold plate tooth, with its two small pins, and we find those pins extend only a little ways into the porcelain body, as soon as we have pressure here at this point, the porcelain facing breaks. Now, that is all right if we add porcelain body, and having a saddle over the alveolar border to support this facing or tooth, then it does not matter how little platinum we have, because we are not dependent upon it alone as a means of support. But let

me say, the ideal crown for the future, the crown that must come some time, through the ingenuity of the dentist, is one that occupies the least possible space on the alveolar border and is so strengthened by a plurality of platinum pins, as an integral part of the crown, and which permits of its being soldered and united in the assemblage of crowns in our bridge work. Then we can do away with the appearance of gold, and only then shall we have the ideal crown. We will say here is the alveolar border; such a crown must have an ideal cusp formation, and such a cusp formation and crown must have the line of a Logan crown, to more nearly approach the ideal tooth formation. That crown must come down in this manner and gradually decrease in size until it represents the smallest surface resting on the alveolar border. Referring to the three pin crown which I invented, there has been no attempt made to place it upon the market and it is simply the *idea* which I hope will be carried forward and finally give us the ideal crown. If we can place the platinum pins in such a position that the bulk of the crown, that is, the portion of the crown that is brought in contact with the forces of occlusion and mastication, is supported by the platinum loop or pins, then have additional support in the way of the third pin, we will have good results. The third pin is essentially a part of the coming crown, for we must have support at the point of contact or force, and also have ample means of attachment, at the same time using all the porcelain possible; only then do we approach the ideal crown."

Personally, I wish to thank Dr. Cigrand for the wonderful amount of energy he has displayed in the preparation of this work. I have enjoyed the paper exceedingly, because anything practical appeals directly to me.

The manner of illustrating the paper is the best I have ever seen.

Dr. Taggart has this to say concerning porcelain teeth of this character, and he calls especial attention to the fact that porcelain can not be strengthened by adding metal in the form of pins. He adds this:

With regard to the strength of porcelain, alluding now to the practical side and not to the discussion of individual cases, Dr. Prothero threw out some suggestions in regard to the strength of platinum pins in their attachment to teeth. The more platinum you get in a tooth the weaker it is going to be. In other words, take one of the cubes Dr. Prothero speaks of grinding and putting under stress; if

you put a piece of platinum inside of the cube it would be weaker than the other piece of porcelain, because the piece of platinum forms the center from which cleavage can start. This does not exist in the solid piece itself, so that in trying to get a stronger cube you do not get it by having more platinum in it. You might put a large chunk of platinum into a cube, but you would lessen the bulk of the porcelain around it, and as soon as you lessen the bulk of porcelain, just in that proportion you have weakened the tooth. Referring to the case of Dr. Brown's tooth, in adding a cross-bar with a third pin hanging down from it, you have got considerable platinum imbedded and have not added anything to the strength of it by doing so. Supposing we have a porcelain tooth at this point (indicating) with two pins in it, and that we attach to it a piece of metal as a backing, the piece of porcelain in its attachment to the metal backing can have no more strength than the weakest point, and the weakest point is where the pins enter the porcelain. According to the modern method of making a crown of porcelain, those pins are practically only used to attach to the bands in order to hold them there for the assembling. The principal strength you get from a modern porcelain crown comes not from the platinum that is in it, but it comes from having new porcelain attached to the whole surface, so that this facing attached with new porcelain back of it has a stronger attachment than it could have to a gold backing, and for this reason the facing is less liable to break off than that would be from a metal backing.

Diagram G refers to the excellent method as advocated by Dr. Roach.

In 1897 Dr. F. Ewing Roach presented a system to this Society which he claimed was productive of natural appearance and resulting in lingual contour. He also stated that by his method the artificial substitute was not a hindrance to the speech, but gave the tongue a normal territory, besides the fractured porcelain could be readily replaced. The centrals were so constructed as to accurately fit a dove-tailed groove in a gold backing (Figs. 3 and 2) and the crown can be soldered to the post which has attached to it a metal disk covering the trimmed end of the root. (Fig. 1.) By this method the porcelain is not subjected to the fire, since the porcelain crown is cemented to the metal backing.

More will be said of this method in my next paper.

(To be Continued.)

DENTAL THERAPEUTICS.

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The narcotics of the methane series are those organic substances characterized chiefly by their actions after absorption. This group is one of special interest, because to it belong alcohol and chloroform. It will not be necessary to go into any lengthy discussion as to the common use of these compounds, but more especially of the action that pertains to some of the special pharmacological features, which is rarely discussed in their practical application. Therefore it will only be necessary to discuss special features pertaining to certain phases of the subject.

With the exceptions of alcohol, which has been more or less in use since prehistoric times, some members of this group of chemical compound do not date very far back into the history of drugs. It may be said that the methane series are specially characterized by the depression they produce on the central nervous system. In the discussion of organic chemistry the methane series play an important part in the organic world because of the combination of carbon and hydrogen with special relation to each other. Owing to the combination of these two chemical elements they have special elective affinity for nerve tissue, or, in other words, the protoplasmia is specialized in the form of nerve protoplasmia. These chemical compounds, in which the methane group prominently takes a part, will act upon the protoplasmia of the nervous system in a special way that characterizes it from all other agents. The carbon radical combines in the form of an open chain, so-called in chemical term, and owing to this open chain formation is given the explanation as to why the depressing effect on the central nervous system, and especially the cerebrum, takes place in a definite manner in each individual condition; although there is a difference in their action, it is to a degree quantitative rather than qualitative. The phase of the difference herein mentioned is due very largely to the quality of the protoplasmia itself. As has just been said, the action as a general rule, so far as the agent is concerned itself, is due to the carbon atoms contained in this chain; however, the atoms of carbon in the molecule may be so great in number as to prevent the absorption of the compound at all.

There is one rule which seems to hold good with reference to this series of chemical agents, and that is that the carbon atom in the molecule as it exists in the methane series is an indication that from the simplest molecular combination to the most complexed one that is capable of absorption, has a special affinity for the protoplasmia, the activity of which is specialized in the so-called nerve force; for instance, ethyl alcohol ($\text{CH}_3 \text{ CH}_2 \text{ OH}$) and glycerine ($\text{CH}_2 \text{ OH} - \text{CHOH} - \text{CH}_2 \text{ OH}$). The first named chemical agent is characterized by a powerful depressing effect on the nerve centers, while the latter affects these centers but slightly. If one will take the time to study the chemistry of these two compounds they can not fail to see the difference in the chemical combination, so far as their carbon atoms are concerned. There is in between these a number of other methane compounds, such, for instance, as glycol and propyl alcohol, that have their varying effects when placed in the circulation of the body.

It might be well to mention here that when the methane series, any member of which may combine with nitrogen, lose their depressing affects by becoming substitutes of ammonia compounds, or if some of this group combine with an aromatic compound they may become substitutes for some of the fatty substances, changing their whole chemical action from the methane to that of the benzol series. An example might be related: Ether may lose its value as an anaesthetic if one of its ethyl radicles is substituted by a phenyl radicle, and if this substitute is carried on until the whole carbon radicles in the methane are changed around in the molecule, it will entirely lose its anaesthetic powers. These questions are of vital importance in the handling of ether as an anaesthetic agent.

A number of the hydrocarbon compounds have been substituted as anaesthetic agents, especially might be mentioned those for short operations, such as pentane and octane. Some of the unsaturated hydrocarbons have also been suggested as anaesthetic agents for short operations, such for instance as amylene, pental and acetylene. This last named agent having such a depressing affect upon the heart entirely relieves it from entering into, or being classed as a therapeutic agent.

Ethyl alcohol has assumed the most prominent place as an agent for use of any of the methane series. It has entered into the discussion of diet and as a poison more perhaps than any one agent known to modern therapeutics. Methyl alcohol is weaker than ethyl alcohol,

while propyl and butyl alcohol are both much stronger than either of the former groups mentioned in this series.

Ethyl ether is reckoned among the most important anaesthetic agents and perhaps is the least dangerous to life of any agent used for anaesthetic purposes. The aldehydes are compounds that are possessed of narcotic affects, but owing to their irritating properties they have had to be entirely excluded from the list of agents which are used to produce narcosis.

However, very recently a polymer of ordinary aldehyde known as par-aldehyde has been introduced for its hypnotic affects, but its value has not been very well established. There are a number of derivatives of the aldehydes, the value of which, in a therapeutic measure, is more or less in doubt. The methylal and acctal are two agents that are looked upon as having some therapeutic value, but the one that seems the most important belonging to the methane and aldehyde group is sulphonol. This agent has gained considerable popularity and is extremely valuable for its hypnotic value and for its use in those cases where the patient is suffering from some nervous shock and is restless at night. The trional and tetronal are similar in their effects to that of sulphonol, but these agents are produced by the displacement of the methyl group and replaced in its stead by the ethyl compound. Their value as hypnotics has not been well established, however, experiments on animals show that they are of value in the production of hypnosis.

The so-called ketones of the methane group have never received much attention, and there has been but one of these compounds brought to notice for therapeutic purposes. Hypnone has gained some special notoriety as a hypnotic. Its use for this particular purpose is very much the same as that of sulphonol.

Amyl-nitrate is a well known agent and really is not to be classed altogether in this group of compounds, and yet its value and its chemical formula comes nearest to this group than any of the methane series, therefore it is usually classed with the above named agents. Instead of its action being due to the alkyl radical it is due to the acid radical, and for this reason it should not be classed in this group. There is an ethyl ester of carbonic acid that belongs, to an extent, in this group of compounds and is extensively used in the experiments of animals, but so far as I know has not been adopted as a therapeutic agent. This agent is usually designated as urethane.

The acid group in the methane series has been but little studied and are but little used in therapeutics as narcotic agents, although

butyric acid is said to possess some depressing affects upon the central nervous system. When the hydrogen atoms of these acids are replaced with bromine or chlorine they are at once endowed with a much stronger action; thus, acetic acid has but little narcotic affect, and chloracetic or bromocetic acids are decidedly more narcotic, but their affects upon other organs of the body has practically excluded them from being used for this purpose.

When one or more hydrogen atoms in the acid groups are replaced with chlorine or bromine they are called the halogen substitution products; for instance, methane (CH_4) has but little depressing effect, but if one or two atoms of the hydrogen is replaced with chlorine the narcotic properties are very much increased. The most common member of this group is chloroform (CH Cl_3). This, as is well known, is considered one of the most powerful anaesthetics. Others of this group are ethylene chloride ($\text{CH}_2 \text{ Cl}-\text{CH}_2 \text{ Cl}$), ethylidene chloride ($\text{CH}_3-\text{CHCl}_2$). These two last named agents are at the present time but little used. Chloral hydrate is the hydrate of trichloraldehyde, and under this head also comes butyl chloral or croton chloral. One of the more recent agents in this group is chloretone. There are several compounds of the chlorine in the methane series that from time to time have been introduced as agents into this series, but their value has not been given of sufficient importance as to make them worthy of being mentioned here.

A number of attempts have been made to introduce the bromine into the methane series for therapeutic purposes instead of that of chlorine, and in this way obtain some of the beneficial effects of the bromides. It is known that the bromide effects are due to the ions of this agent, but in the combination of the methane series with the bromine precludes the possibility of their existing in bromide ions.

Ethyl bromide ($\text{C}_2 \text{ H}_5 \text{ Br}$) has been used as an anaesthetic as well as that of bromoform (CH Br_3), but these two agents have never found any extensive use in such places as to make them practical for anaesthetic purposes. It is well known that bromine and iodine combined form powerful compounds, but their combination in the methane series has as yet accomplished but little, so far as their usefulness is concerned as therapeutic agents, for the simple reason that while they are more active they are more poisonous. The combination of the chlorine and the methane series has a more stimulating effect upon the part and consequently is less dangerous to the animal than that of bromine and iodine.

We have previously called attention to the value of some of these compounds as they are introduced into therapeutic usefulness. We also called attention to the comparative action of many of these agents, and it seems that what has been said with reference to the action of these compounds being due to the carbon atom in the molecule, would serve to indicate the extensive variability of these compounds on the protoplasmia of the higher forms of animal life, and more especially upon the nerve centers, which is supposed to be the highest type of protoplasmic structure. The carbon atoms, as we have already seen, play an important role in the action of these methane compounds. It does not always mean that the increased number of atoms in the molecule is of such vast importance as it apparently depends more upon the relative position of the carbon atom to other atoms in the molecule.

Therefore in the discussion of organic chemical compounds it is vastly essential that we study the relation of one atom in the molecule with that of the other. It sometimes happens that these molecules are not easily disassociated one from the other, but in splitting up the molecule we have liberated in the tissue one ion that has a strong affinity for another element that is present in the protoplasmia, in this way becoming intimately associated with the proteid carbohydrate or fat compounds that are contained in the protoplasmia; thus they may act in a way as to produce a greater proliferation of cell structure and cause too rapid a growth of certain cell structure, or they may act as an extreme protoplasmic poison and entirely arrest the cell proliferation, and thus bring about necrosis of the cells. In either case we have the extremes, we have too rapid an increase in growth or else we have growth entirely arrested, which results in death and loss of function to the part. But many times neither of these conditions are produced. We may have a slowed functional activity which will gradually go on and produce atrophy of the part, and in this way an irreparable damage has been done, while on the other hand there might be a slight stimulation and a prolonged and constant growth until we have a tumorous formation, which may result in the end as a loss of function to the part. These intermediate stages are the ones which so frequently take place when there has been any agent introduced into the body capable of entering into chemical combination with the protoplasmia without rapidly increasing or arresting its function, which in either event would result in rapid function of the part and finally death.

(To be continued.)

OPERATIVE DENTISTRY.

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CHAPTER XXXII.

HYGIENE OF THE MOUTH.

It is pretty generally recognized that bacteria is the cause of the breaking down of the highly organized tissues of the mouth, or particularly of the teeth, the direct cause being due to an acidity due to fermentation, or putrefying conditions.

Micro-organisms are maintained and are active only in the presence of heat, moisture and food. The mouth, having these essentials in abundance and being the habitat of many varieties of bacteria, is a veritable hot-bed for their culture and the consequent conditions capable of corroding and disintegrating the hard, dense structure of the teeth.

It would be a somewhat natural conclusion that with such a potent agent always present and in contact with the teeth, destruction must follow rapidly. Such is the case in some especially favorable circumstances, but nature has provided at the same time, when conditions are normal, a counteracting influence which renders the teeth to a large extent immune from this corrosive attack and only yields when its laws have been in some way perverted, through ignorant or wilful disregard on the part of individuals or their ancestors.

Primitive man was endowed with good teeth and all the conditions necessary to preserve them through a natural existence, but modified man has a good many inherited weaknesses to contend with, as well as results of his own personal indiscretions. In consequence the present generation, and many before us, have not been endowed, in many instances, with perfect teeth to begin with, being prenataly deficient in many ways, and our maintained habits of living are not conducive to their long preservation.

Rarely, in this day and age of the world, do we find among civilized nations, any who can consistently ignore the services of a dentist.

Hygiene is defined as the art of preserving health. Hygiene of the mouth, then, is the art of preserving health in that orifice, and especially of the teeth, since these organs, the hardest in the entire

human economy, and the most highly organized, are more prone to impairment all through their stay than any other part, and with no provision in nature for the repair of lesions as have other tissues of the body, if not too seriously injured.

The only soft tissues in the mouth that become diseased and degenerate with a trouble common to many after maturity, are the gums and other tissues immediately surrounding the teeth, the latter not being involved except as a sequence—that is, becoming loosened and dropping out, or requiring extraction, but sound in themselves.

This, of course, has reference to so-called pyorrhœa alveolaris. The name does not correctly designate the disease, nor do several others which have been applied, but the disease, whatever it is, and whatever the cause, results in the loss of more teeth, all told, than does caries, which, as has been shown, attacks the tooth itself.

It has been noted by many observing dentists that where immunity to carious attacks has prevailed until middle life, there frequently seems to be a greater tendency than usual toward pyorrhœa, and one often hears of people who never had occasion to visit the dentist owing to every tooth being “sound as a dollar,” but strangely, to them, they became loose and just dropped out. And yet not infrequently in some such mouths a few teeth will remain entirely unaffected either by caries or disease of the tissues surrounding.

Now, all the foregoing goes to show that while elements of danger generally exist, or are ready to possess the field at the least opportunity, nature endeavors to adjust matters equitably or in favor of health, but she must in many instances have our assistance.

Hygiene of the mouth must, in large part, be attended to by each one for himself, and earnest coöperation given when the advice and skill of the dentist is sought. The services of our profession is rarely sought in a preventive way, but when curative and reparative measures are seriously in demand. The first efforts of the dentist, when called upon in time, are prophylactic; and, of course, this goes all along through subsequent service, as concerns tissues not yet affected by disease, or at least should do so. He should not only try to prevent caries, but with watchful care, and the coöperation of the patient, prevent any foothold of pyorrhœa.

While degeneracy of the tissues of the mouth, it is true, provides a field for the dentist, or, in other words, makes business for him, there is not one with any pretense of honesty and ethics at all who will not give the best council and advice at his command as to what people may do for themselves toward preserving their teeth. Every

dentist advocates proper personal care of the teeth by use of the tooth brush. He likes to look into a well kept mouth, but he knows that all deleterious substances can not be removed by the patient, however painstaking and diligent he or she may be. He knows, too, that his own efforts, with all his knowledge and skill, and with all the facilities at his command, must be extremely painstaking if he removes everything that should be to preserve healthy conditions. Every recess in a tooth must be penetrated, and every surface of each tooth must be gone over with proper instruments, and every particle of deposit sought out and dislodged from under the free edges of the gums, for just here lurk the incipient conditions that lead on in time to pyorrhœa. Cleaning teeth for show and cleaning teeth conscientiously for the preservation of their health are two different things. The patrons of our profession, however, do not always appreciate the difference, especially when time must be consumed to do honest work and a fee charged accordingly. Some dentists—too many—have a fixed fee, and a small one at that, for cleaning teeth, with the result that only the effort is expended that in their estimation fits the fee, and that is mostly mere cleaning for show. One can not prevent pyorrhœa in that way.

Operators having the confidence of their patients that they will do what is right and best for them, take all the time necessary, one hour or ten (in different sittings), to do thorough work. If cleaning and polishing teeth is an essential part of hygiene, and it unquestionably is, every surface of every tooth must be painstakingly gone over and hidden deposits hunted out by skillful touch and manipulation. Polishing is essential, first, because scaling does not always remove all the minute particles and any such portion left is a ready nucleus for new deposit, and, secondly, because a polished surface makes new deposit difficult, hence remains longer in good order. Polishing under the free edge of the gums may be done in some instances by hand with a flattened piece of orange wood and pumice, following with fine chalk. Polishing cups of rubber and others of bristles are provided for the dental engine and may, by a little effort and dextrous manipulation, be carried under the free edge of the gums without any serious injury to the same. There are deep-seated pockets in advanced stages of pyorrhœa that can not be polished other than may be done with varied small points held in the hands like scalers.

Of course, medication follows instrumentation and polishing, the first being some H_2O_2 (peroxide of hydrogen), 3 per cent preparation to wash away debris.

This preparation might not always be judiciously used injected into deep pockets with constricted opening for escape. Peroxide of hydrogen in contact with pus and putrescence is almost explosive in the rapid formation of gases, and even in contact with serum, and the result in deep, close pockets is often painful and there is a risk of disease germs being forced farther into the tissues with the pressure. Peroxide of hydrogen is very excellent to use with polishing powders. Persistent stains will usually yield readily with this mixture.

The other medicaments to use depend somewhat upon conditions. In many instances, in the early stages of pyorrhœa, or conditions that would in time lead up to it, the application of peroxide of hydrogen is sufficient. In other stages an astringent antiseptic and stimulating remedy should be used. And, again, when pyorrhœa has affected the alveolus, a remedy is required to eat away or separate the dead particles of bone from the living, and stimulate the parts to renewed healthy action. A combination of carbolic acid and sulphuric acid, equal quantities of each, worked into the pockets on a splinter of wood, brings good results, being repeated for three or four sittings if need be.

One of the most wholesome things that may be done after brushing, and to be done mostly, if not entirely, by the patient, and done daily, or should be, is massage of the gums. This may be done with the fingers pressing hard above the teeth and squeezing and working down to the edge of the gums. A little time spent each day with gum massage will result in those tissues becoming harder and more capable of resisting the incipient deposits, in fact, dislodging some that have got a foot-hold.

Tooth-powders or pastes are good adjuncts to the brush, more because they assist in removing the filmy foods and mucus, better than a plain brush and water.

Waxed floss silk, or dental silk, will go between the teeth where the brush can not reach, and, used daily, is beneficial.

There is a large number of antiseptic washes on the market, but none of them can be depended upon to keep the mouth free of germs, or to reduce the harmful conditions very materially. With most of them the mouth feels refreshed and cleaner after using a wash or antiseptic and it does no harm if it does no good. But it does do some good for a short time, and most of them are good to be used daily.

(To be continued.)

ORIGINAL CONTRIBUTIONS

TOOTHsome TOPICS.

BY R. B. TULLER.

Fingers. Five of them. Five on each hand.

And a nail on each finger to be kept trimmed and clean.

Oh, yes, I know all about that two finger business, that "Gimme about two fingers."

But I'm not talking about that kind. Any old kind, -clean or otherwise, thick or thin, will measure *enough*.

One would be better.

Two fingers, and especially two fingers too much, have got me into trouble more than once.

You see, two fingers, when I was a boy, meant water, and a plunge in it.

It meant "come along," and I'd go, in season (and out of season, perhaps) and then sit on the bank in the sun and tousle my hair until it was dry 'gainst the time to be going home. Et tu Brute? There was well nigh a tragedy if we didn't, huh?

Oh, those days of yore! How they come thronging back to me again in the good old summer time!

Well, you've been there—if you were ever a boy. Wasn't that swimming hole a dear old spot, whether a limpid stream, a mill pond or a clay hole filled up with rain? You know, too, that when your face was not dried—scientifically dried, that is, with a towel or the tail of your shirt, and sometimes when it was—there would be certain ear-marks, so to speak, streaks and clean ridges here, and dirty creases there, that somehow mother would catch on to, and then something else would catch on. Gee!

Somehow we felt it was worth the risk. There were risks, too, about shirked duty at home. It takes mighty strong will power in a boy to keep right on sawing wood or weeding the onion patch when a bunch of other boys appear in sight, each with two fingers up in the air. Say!

Now, when and where did the synonym of two fingers held up and swimming begin? My father was familiar with it over one hun-

dred years ago, and my grandfather used to tell me how he knew all about it when he was a boy. In my estimation it originated with Noah's family and spread all over the world, for the sign is good all over this country and in other lands. Did Noah's *boys* originate it when they wanted to take a dive without putting the o m on?

But I'm wandering. I started out to talk about other fingers. What kind of fingers have you? Are they thick, short and stubbed? Well, I can sympathize with you. They were just as good as any, however, as a boy.

But for a dentist, say, he wants the longest and slimmest that ever were made. And that is not all. He wants the cleanest, softest, gentlest fingers that ever were made, and then he wants to be careful—ever careful—how he uses them.

In some avocations we have a real admiration for a man who, full of energy to grasp the duties before him, spits on his hands and rubs them together before he tackles his job, but——

Well, a well bred dentist would hardly start in so vigorously as that, but—but I, and you, have seen things quite as bad in a way.

You know the dentist who has a habit of running his fingers through his glossy locks, or strips his whiskers, or repeatedly pulls out and twirls the ends of his moustache, and keeps right on at his operation.

Or he has a ticklish ear and, inserting a finger, vibrates it in a way to make an old rattle snake green with envy—if he could witness it—and he doesn't think anything of that. The patient may *think*—probably does. I hate to show him up to gaze, for he is somewhat rare, but you've seen him and I can't overlook him, and that's the fellow who frequently tweaks his snout and then—well, if there wasn't a limit to the stretch of his grisly proboscis I think he might go up to the bridge in his digital explorations, cross over and come down on the other side—and then go right back to "sawing wood"—if the patient don't jump and run. That fellow's place is back really sawing wood, or driving wagons of farm fertilizer. To tell the truth, he is very skillful, but he ought to have located among the Hottentots, or turned his attention to orificial surgery. He's bughouse.

I called on a dentist one day who dug down into a box of old human teeth to find one fitted to illustrate the wisdom he was trying to impart to his patient, and after handling it a while he forgot to repair to his lavatory before proceeding with his operation.

Such a fellow—yes, fellow—is liable to pull open his own mouth and finger around to show up a crown that he put on for himself, and still forget the necessary ablutions to make him fitted to proceed.

Speaking of soft, gentle fingers, I know an operator who is a positive freak in the opposite direction. His fingers are coarse, rough and horny, always; and the nails are scraggy and harsh, and if he is clean he don't look it.

As to gentleness of touch, he grabs—that's the word, *grabs*—hold of the mouth as though he had hold of an old leather pouch. Every move and touch lacks gentleness, and would if his fingers were soft as velvet.

Then, again, he makes about forty-five needless jabs and yanks with his fingers here and there about the mouth, and if there is a particularly sore spot or sore tooth he is sure to poke it good and hard, to see if it really is sore. His nails, not well kept, cut into the gums and cheek. Again and again he pulls open the mouth and pokes and looks, pokes and looks, in a long drawn out diagnostic quandary, before he decides his course of action. When he finally gets at it he may do a creditable piece of work, but I don't know. I know that I'd rather risk a gentler man and a softer finger. If I were he I would wear gloves.

Well, we all know one thing pretty well, that you can't keep nice, soft, tender fingers and do much finishing up of plates and coarse laboratory work, but you can keep your fingers clean.

I am glad to say this, the freaks I have spoken of are mighty few in dentistry. In these latter days of emphasis on sanitation and sterilization along the line of professionals who treat human ills, there is none, in a general way, more careful, precautionary, particular and exacting than the up-to-date dentist.

They all know the assurance it gives each patient to see and know that hands are washed the first thing, though they themselves *know* they are absolutely clean. They know that it is wise to return again and again to the lavatory if there is the least occasion, and that no dentist should proceed with an operation after absenting himself for a few moments without first washing his hands—his fingers. Dainty fingers should mark the dentist as well as any charming lady, and the lady will mark the dentist—and remark later—anything remiss, certainly anything outlandish.

If you will take tainted money you are quite liable to stop and take some from someone who comes in during an operation. Remember it is filthy lucre. I tell them, "No, I can't touch it. Come in again when I have more time to sterilize it." (?) Oh, yes!

It is a mighty easy thing to do something that may contaminate the fingers or create a suspicion, at least, unless one is eternally on guard. One's handkerchief comes into use so frequently that in that particular we should be exceptionally careful. A ready washbowl should be conveniently at *hand*, as one might say, at the very *elbow* of every dentist, that he may keep his *fingers* clean all the time.

Don't be bughouse.

(Toothsome topics every month.)

SOMNOFORME.

The National Dental Association opened the last day of its ninth annual convention at the Iroquois at noon to-day, following a morning spent at the dental department of the University of Buffalo, during which many interesting clinics made up the programme.

The papers read by Dr. Aguilar at the World's Congress appeared in Dental Publication of the country and attracted united attention from the dental profession, to which somnoforme appealed particularly because of its peculiar desirability in painful operations in the dental chair. The agents for the disposal of this new anaesthetic in the United States have up to the present time confined its introduction entirely to the dental profession.

But there is a medical man in our city who is always glad for opportunity to welcome any agent that will aid the surgeon in relieving the suffering incident to the use of the knife, and he, Dr. Matthew D. Mann, hearing that Dr. J. F. Frantz, was in attendance at the dental convention, demonstrating this wonderful anaesthetic, invited him to administer it in an operation he performed at the General Hospital on High street this morning.

The results were eminently satisfactory, and to our fair city of Buffalo may belong the credit of introducing to the medical fraternity of this country another great blessing to suffering humanity.—*Buffalo News.*

PYORRHOEA ALVEOLARIS.

BY JOHN P. RUF, D. D. S., NEW YORK CITY.

This condition, which seemingly is becoming more and more prevalent, needs careful and energetic treatment, both local and systemic. Much depends on catching the disease in the early stage, at which time a cure can readily be effected. In the more advanced cases we can arrest the progress of the disease and produce a cure, but we can not prevent its recurrence without we secure a radical change in the habits of the patient.

If the patient exhibits signs which characterize a uric acid diathesis, we recognize that the calcific deposits forming on the teeth are but symptoms of the general conditions and direct our attention to systemic treatment based on the solvents.

Our local treatment consists of a thorough scaling from the teeth all accumulations of tartar by means of suitably designed instruments which enable us to reach every portion of the root. Measures should be then instituted which would harden the gum tissue and tighten the teeth. Best suited for this purpose will be found glyco-thymoline in combination with citrate of lithia. Comparative results with various formulas show the above to be ideal. My practice is to throw the solution deep into the sockets and abscess pockets with my syringe and to instruct my patient to apply the solution in a similar manner three or four times a day by means of a new glass syringe known as the glyco-thymoline applicator. I also suggest the use of glyco-thymoline in a 25 per cent solution as a mouth wash.

Following below I am detailing the clinical histories tending to show my findings under this treatment:

Mr. M., May 25, 1900, case presented but five remaining teeth in the superior maxillary, all of which were very loose. There was an extremely offensive discharge of pus. Twelve teeth in the inferior maxillary were found in the same condition as above. The marginal surfaces were highly inflamed and very sensitive, bleeding at the slightest provocation. With such a discouraging aspect as presented in this case, I advised the extraction of all the superior teeth. The patient, however, offered serious objections to this, stat-

ing that he must have bridgework and would not tolerate denture. Giving him no assurance of special success, I began my treatment, first carefully scaling off all calcific deposits and using the following:

R Citrate of Lithia	gr. v.
Glyco-Thymoline	oz. i.

by deep injection, flushing out every pocket. The same solution was ordered for the patient to use three or four times a day as a mouth wash. After the second week this solution was reduced to 50 per cent. The inflammation and pus formation began to subside rapidly and on July 24th we set an eight tooth bridge, and discharged the patient. On May 6, 1901, I again saw the patient, finding everything healthy and the teeth perfectly firm.

Mrs. M., age 35, examined November 1, 1900. This case exhibited badly swollen gums, with profuse bleeding at the slightest touch. The pain was intense. The condition no doubt had been aggravated by the fact that the patient was in the habit of taking twelve grains of calomel on the first and fifteenth of each month for the past six years. My method of procedure was practically the same, thorough scaling and the frequent application of glyco-thymoline and citrate of lithia solution, five grains to the ounce. In this case I made seven treatments during the month. The daily use of the solution was also directed. A complete cure resulted. I saw the patient again in May, 1901, at which time her mouth was absolutely healthy.

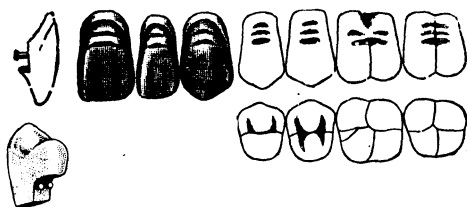
Mrs. L., aged 68. I found her lower teeth very loose with deeply engorged gums. There was a profuse discharge of offensive pus. The patient was placed on the same treatment as indicated in the preceding cases. In all six office treatments were given, at which time the inflammation disappeared, all discharge stopped and the mouth felt comfortable.

As a prophylactic measure I desire to mention the fact that I have used this formula as a mouth wash with many patients troubled with accumulations of tartar and find that it tends to check the trouble to a marked degree. Altogether it is the best treatment I have ever used.

TYPICAL TOOTH FORMS.

BY DR. L. P. HASKELL.

What I have been for years trying to obtain from leading manufacturers in the correction of serious faults in bicuspid and molars has at last been realized in molds 86 and 87 of the Twentieth Century Teeth. They were made at my request and are typical molds which can be used with many fronts.



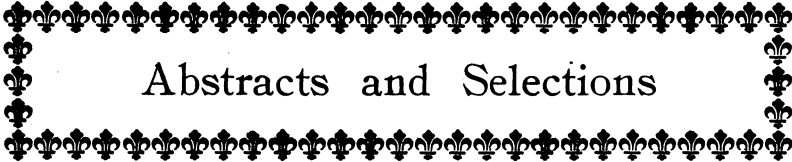
Molds 86 or 7, and also *side* view of a bicuspid.

The faults of which I speak are these: In nature the lingual cusps of upper teeth are shorter than the buccal. The lower teeth are longer. In all makes of teeth this feature is almost entirely overlooked, both cusps are usually the same length. This being the case, it is an impossibility to articulate or bring the buccal cusp as low as needed without shortening the lingual cusp. Here we meet a serious difficulty in the small amount of porcelain above the pins, the pins being almost always set unnecessarily high; so, when the tooth is in a proper position by the needed grinding, there is so little porcelain left it is soon broken off by use. The remedy for this is simply setting the pins lower and also making the lingual cusp shorter.

Another serious fault is the so universally small size of these teeth—thin, narrow, very little masticating surface.

Still another fault is in the assembling of fronts and backs; often wide fronts have narrow bicuspid and molars and narrow fronts unduly large bicuspid and molars.

So, after all these years of the manufacture of artificial teeth the evil continues. One company has a list of 120 molds of vulcanite upper bicuspid and molars and most of them are open to these faults. There is far less difference in size of bicuspid and molars than of fronts. I could not possibly find use for more than six molds.



Abstracts and Selections

SOMNOFORM.

BY E. G. P. PHILPOTS, COROWA.

(A Paper read before the Odontological Society of Victoria.)

The introduction to dental surgery of a new anæsthetic was accomplished a few years ago, when Dr. G. Rolland, of Bordeaux (France), published his method of administering "Soemnoforme," his own discovery, for producing anæsthesia. The term has been Anglicised, and is now commonly known as "Somnoform." It was one thing, however, for that eminent dental scientist to *introduce* his excellent novelty, but quite another to secure its immediate and general adoption over anæsthetics already in favor with our profession, in daily practice. Prejudice and fear had to be fought before it could attain its present position in dental surgery, and I am fully satisfied that we can now exclude chloroform, ether, and nitrous oxide from our dental practice in favor of this drug, which every successive administration proves it to be so much more desirable than any other for both patient and operator.

It is needless to refer to the dread of chloroform which exists among the general public, in consequence of the lengthy list of fatalities which darken its otherwise brilliant operating track. For example, before almost ceasing to use chloroform in my practice, it was no uncommon thing to hear a patient, to whom its excellent qualities were suggested, exclaim, "Oh, no! I would never dream of taking such a dangerous drug!" or words to that effect.

In fact, during the past fourteen months I have only used chloroform in three cases; and in each case only at the earnest request of the patient. These three were simple cases, in which the less dangerous nitrous oxide would have admirably served; but as no effort of mine could induce a change of mind in favor of nitrous oxide, the older drug was used. During the same period I have had other really difficult extractions, in which it was desirable to use chloroform;

but I could not overcome the patients' dread of the drug, and was in every instance induced to rely upon nitrous oxide, which involved in some cases as many as five and six administrations to remove all the old roots. I also had a series of nasal administrations during the same period, but was handicapped through not having an assistant. Nevertheless, I had successful results with them, though nothing in comparison with my later achievements with somnoform.

I had read articles in favor of somnoform in 1902, but it was not until 1903, when I was in London, and there saw for myself with what pleasing effects and most desirable results somnoform could be administered in dental surgery, that I became assured of its superiority over every other anæsthetic. Naturally, that assurance impelled me to purchase an apparatus for use in my practice in Australia; but after my return to Melbourne I could scarcely find anybody with a good word to say for somnoform. I could not get a medical man to fall in line with my views regarding its superiority until after the appearance of last December number of the *Dental Cosmos*, which, on p. 1052, contained an excellent paper on Dr. Rolland's important discovery of somnoform. The paper was read at the Fourth International Dental Congress, St. Louis, by Dr. Florestan Aguilar, of Madrid (Spain), who in full, able and concise terms, dealt with all the aspects of somnoform, which he—Dr. Aguilar—claimed was entitled to be termed "One of the most important clinical discoveries of modern times."

I have no doubt that that paper has been read by every member of our profession who regularly takes the *Dental Cosmos*, yet I may be pardoned for expressing the opinion that Dr. Aguilar's paper presents us with a compendium of all the facts regarding somnoform which had been demonstrated by laboratory experiments, and by hospital and private practice in England, France and Spain, during the whole period embraced by the years 1901-04.

As I have already here explained, although personally predisposed in favor of the new anæsthetic, yet the wise conservative carefulness of our medical profession appeared to block examinations and tests of its merits, and this caused me to hesitate before adopting its use in my practice. However, Dr. Aguilar's paper so satisfied Dr. W. H. Lang of its safety, superiority, and therefore desirableness for cases of brief anæsthesia, and so fully confirmed my own opinions, that Dr. Lang promised to administer somnoform for me. Our first case was that of a male, aged 30, strong, healthy, alcoholic, if anything. Gave him

5 c. c., thirty seconds' inhalation; one minute anæsthesia; eighteen extractions. Patient struggled as the anæsthesia passed off, so gave a second administration, which stopped the struggling and gave time to finish my operation. The struggling was slight, and had nothing in it to prevent the carrying out of my work. I may state here that in subsequent cases I have noticed far less struggling with somnoform than with nitrous oxide. In fact, out of 124 of my somnoform patients (my total to date), there were only three of bad struggling, and these were all young men, accustomed to hard work and Colonial beer, or, perhaps, wine. Women behave much better, and prove really good subjects for somnoform. They rarely struggle, and in most cases do not move until consciousness returns.

Our second case was that of a younger male, aged 17. Administration, 10 c. c.; 35 seconds' inhalation; extracted twenty-four stumps. This patient expressed himself as very pleased with the drug, although he had swallowed a little blood, which resulted in a slight vomit. He said he would not mind if a second administration was necessary.

In March last I revisited the Melbourne Dental Hospital, and there had the pleasure of seeing my learned teacher of dental surgery—Dr. W. Orr-Gray, L. D. S., D. D. S.—administering somnoform, and with marked success. Dr. Gray used capsules, a decided improvement on the 50 c. c. bottles with spray. In the following month I had the further pleasure of perusing the same doctor's excellent paper entitled "*Somnoform versus Nitrous Oxide*," which appeared in the *Australian Journal of Dentistry* for April 29, 1905. That paper constitutes in itself a great and authoritative local pronouncement in favor of somnoform. Nay, the following extracts exactly voice my own convictions: "After the most careful and critical use of somnoform, my personal opinion is that it has come to stay, and is far superior to nitrous oxide for many reasons. * * * I have no hesitation in saying that I would never now administer nitrous oxide myself in preference to somnoform, in private practice, as I firmly believe we take more risk with the former and do less justice to our patients." I can not add a word to such high and correct testimony.

In administering somnoform I have discarded in my last 122 administrations the method used for my first two cases. I used 3 c. c. and 5 c. c. capsules, discarding entirely the cotton cone supplied with the inhaler. I simply smash the small end of the capsule into the air valve of the inhaler, and when the contents of the capsule have passed

into the inhaler, I close the air-valve quickly and apply the inhaler to the patient. Before breaking the capsule I instruct the patient to take very deep breaths, and at the same time explaining that the drug may not be pleasant for the first three or four breaths, but that any unpleasant feelings soon pass off. In certain cases I have found it desirable to give air with the earlier breaths. This is easily accomplished by applying the face-piece of the inhaler loosely to the face, and after the third or fourth inhalation adjusting it tightly to the face. But I rarely adopt this method, except in nervous or anæmic cases, because the admission of air, while making somnoform more pleasant to take, is apt to cause struggling, especially in muscular subjects, with whom, if air be given, struggling is really very great. My practical experience with somnoform, though eminently satisfactory, has taught me to regard it from one aspect, as a somewhat deceptive drug. This deceptive aspect occurs in the very scantiness of its signs of the production of anæsthesia, as compared with those given out when nitrous oxide is used. Somnoform never fails to produce the necessary and superior anæsthetic condition, but the detection or reading of the signs of that condition by the operating dental surgeon is not always very easy, unless he watches his patient most carefully. Those signs which follow the administration of nitrous oxide are almost entirely absent when somnoform is used. Heavy stertorous breathing and loss of natural color are never present with somnoform, and only in rare cases is there any struggling; while, on the contrary, the respiration continues perfectly natural and regular, and the face only usually flushes to a slight extent. It may be an aid to many dental surgeons who have not as yet tried somnoform to know the method I have adopted with perfect success in the detection of somnoformic anæsthesia.

When preparing to administer somnoform, I hand a stop-watch to my assistant, and instruct him to start it going directly I apply the inhaler to the patient, and to tell me directly the watch shows that fifteen seconds' inhalation has taken place. Having so instructed him, I then charge the inhaler with somnoform, and, after promptly adjusting the inhaler to the patient's face, I devote my closest attention to the breathing of the patient, not only to observe that it is regular, but that no swallowing instead of inhaling takes place. When my assistant tells me that fifteen seconds have elapsed, I say to the patient, "Can you hear me?" Usually the patient nods affirmatively.

Five or ten seconds later I repeat the question, when the absence of reply constitutes one of my guides to knowing that anæsthesia has been produced, and that if the face-piece be then removed the anæsthesia will deepen, and will allow an operating period lasting for a minute or a minute and a half. This is absolutely my best guide, but I watch also for, in some cases, relaxation of muscles, in others rigidity. When I require a longer period of anæsthesia than usual, I continue administering until a soft snoring ensues. This generally follows administration of from forty-five to sixty seconds, and I know no reason why the production of deep anæsthesia should take longer than a minute. I have had but one experience in contradiction of this assumption, but it was in the case of a young and very alcoholic subject, who at first would not inhale the drug, but, holding his breath, kept swallowing it. It took two minutes to put him off, and the case constitutes more an exception than a contradiction.

The necessity, however, for always securing perfect anæsthesia before performing an operation was illustrated in one of my earlier administrations of somnoform. The patient, a young pharmacy student and personal friend, only required a single extraction, and so I made him the subject of an experiment. I removed the face-piece after administering for only fifteen seconds' inhalation, and made the extraction. The operation was performed without pain, but the too early removal of the inhaler allowed the air to enter the lungs before anæsthesia had been completed, and my friend declared his sensations were horrible—"a mad whirl and whiz."

Although I find that from forty-five to sixty seconds' inhalation allows, as a rule, ample time for lengthy operations, still I have met with one exception, and that, too, where it might have been less expected. The subject was a young lady whose mouth contained a mass of decayed teeth, and from whom thirty-two extractions were necessary. This lady had suffered much from grief and illness. Various near and dear relatives had succumbed to pneumonia within a recent period and at brief intervals, and she herself had, but a few months back, recovered from a severe attack of the same dreadful disease. I deemed her one likely to prove supersensitive to anæsthetic influence and fully expected to clear out the lower jaw in one operation, but she was a full minute inhaling before deep anæsthesia set in, and it lasted barely a minute. Therefore she had to undergo three successive operations, at intervals of about a week between each, and on each occasion

she was a full minute before she succumbed to deep anæsthesia, and on only one, the second, did the anæsthesia last over a minute, when it lasted two minutes. This would have been a very bad subject for nitrous oxide.

The effect of somnoform upon patients varies according to their mental and bodily vitality. Generally speaking, it is very soothing, and not infrequently accompanied by vivid dreams, which are sometimes portrayed as the anæsthesia is passing off.

For instance, one of my earlier male patients suddenly threw his legs high in the air and delivered the most terrific borborigmi ever heard. Another lay back in the operating chair smiling and flushing happily, while giving other unmistakable evidence that the drug had affected him aphrodisiacally. Another, a muscular young man, gave an exciting exhibition of one struggling against the horse-play of companions. He suddenly contracted his legs, then, shooting them out right and left, very soon would have cleared the surgery if my assistants and self had not held him very firmly. As it was, an iron stand was overturned and a number of glasses smashed. A most amusing case was that of a teamster, who had left his wagon and six horses standing out in the roadway in front while he came to my surgery to get some teeth extracted. He also was young and powerful. When anæsthesia was passing off, he dreamed (as he afterward told me) that his horses had bolted up the street with his wagon and that he was pursuing them when he awoke. A nurse from the hospital was watching my operation at the time, and it had just been successfully performed, when the man yelled, "Whey, whoa! Wey, Noble! Wey, Lucy! Oh, you ——" Aspersions on their legitimacy, adorned with adjectives that might have won the envy of an accomplished bullock driver, were commencing to flow with increasing rapidity, when, with the mental exclamation, "Ladies present, Mr. Boffin," I clapped my hand over his mouth, receiving for my pains a copious discharge of blood and saliva all over my face, chest and sleeve. In only very few of these cases could a patient remember a moment afterward anything of what occurred, while in each case surprise was expressed by the patient that the operation had been painlessly and successfully performed without his knowledge. Moreover, each expressed his pleasure and satisfaction with somnoform. An experience well worth citing here was that of a young and nervous man who had persuaded a friend of his to accompany him, and stand by him while getting some

extractions made by me. His friend is a teacher of the mandolin, upon which he is an excellent performer, and he had his instrument with him. Thinking music might assist in soothing the nervous patient, I asked the musician to kindly play a selection while I administered somnoform and operated. My request was complied with, and the whole affair passed off successfully, but with the result that, while the patient had not been aware that he had been operated on, and had not felt the slightest pain throughout, yet he declared he could hear every note that had been played, and simply thought the operation would commence after the air was finished. He looked upon the affair as a charming dream. This case amply demonstrates that, if the patient can be assured that there is nothing to fear, and, thus assured, takes the anæsthetic with so much confidence as to allow his attention to wander from it to other thoughts or sounds, the very happiest results possible to be derived by the administration of an anæsthetic can be achieved with somnoform. I trust I may be pardoned for expressing the opinion that it is a dental surgeon's duty to endeavor to always bring his patient to this frame of mind before any administration of somnoform.

As regards chloroform, it is pleasant to reflect that its days are almost numbered, so far as dental surgery is concerned. I may remind you, gentlemen, that so far back as 1897 that great authority, Tames, published in his admirable work, "Dental Surgery," page 528, the following stringent caution: "But chloroform should never be used in dental operations. Whether it be that the upright position adds a danger when the heart's action is lowered, or whether there be some other cause, it is certain that quite a considerable number quite disproportionate to the number of administrations of patients have lost their lives under chloroform administered for dental operations. And every few months a fresh case is recorded." Later on, in 1901, Smale and Colyer, in their text-book, "Diseases and Injuries of the Teeth," said, on page 585: "The regular employment of this agent (chloroform) in dental surgery is to be severely condemned, and the cases are rare indeed in which it seems actually necessary."

In concluding this paper, I beg to point out that when Dr. Aguilar was reading his valuable paper, to which I have referred, somnoform had already experienced a clean record in over 100,000 successive administrations, of which its discoverer, Dr. Rolland, had administered 52,000; that when Dr. W. Orr-Gray wrote his further

instructive paper in favor of somnoform in April last, that gentleman had already administered it in over 150 cases at the Melbourne Dental Hospital, and with marked success, too; and that when I now add my testimony of 124 administrations, each succeeding one of which has given me increased respect for its painless and soothing effects and its operating utility and safety, I can not help feeling that somnoform must win, on its own merits, the foremost place in all dental operations of the near future for which anæsthesia may be required.

It is just as safely applied to children as adults. I have found thirty seconds' inhalation of a 3 c. c. tube any amount for the average child. My youngest case was a child of seven years, from whom with its aid I extracted painlessly four six-year-old molars. Finally, Mr. President and gentlemen, permit me to express the hope that you may all, very shortly, be experiencing the exquisite ease and satisfaction with which your respective dental surgery can be performed with the aid of somnoform.—*Australian Journal of Dentistry.*





EDITORIAL

DENTAL LITERATURE.

For several years past it has been our privilege to keep more or less in touch with the literature of scientific investigations in general as well as that brought out by dental publications. One of the striking features of the dental literature is its seeming originality in both its text and language; nevertheless, in reality, one finds many times that its thoughts and even its very expressions can be found in other publications; yet the excerpts are given without any reference to the source of the literature or to the whole idea therein contained. In some respects this can not be a very great defect in the writings of the dental profession, but in other respects it shows a lack of generosity and culture. It is true that the thoughts and writings of others are for our use, but we have no right to take them and use them promiscuously without the proper consideration of their origin, their value and their applications.

The writer on scientific topics strictly adheres to the rules for quoting, giving due credit to the thoughts and ideas of those who have previously taken part in the discussion of the subject which he is specially interested in. If he were not to do that, his colleagues working in the same field would not consider him a true scientific man, because he would have demonstrated to them that he had not thoroughly studied his subject or that he was dishonest in the application of the thoughts of others. It is important that all dental literature and the thoughts be carried up to the time when the subject is brought out for discussion; especially is this true if the work is of sufficient importance and contains material of sufficient value to warrant its being later brought up before a body of men who are looking for all information, or at least the best information, upon that particular subject. If the writer on a particular subject wishes to impress his thoughts upon those who are to listen or who are to read the subject matter in the future, he will assume a far more dignified place in literature by quoting or giving expression to the opinion held by others, whether or not it in all respects coincides with

his own ideas or experiences: If this opinion on scientific investigation or practical experience does not bear out that of others, he should differ in the same kind of spirit in which he would agree with him, provided his opinion or experience agreed in all detail with that of his own. In this respect dental literature is entirely different from that which comes under the head of general scientific literature.

In assuming the place of scientific thinkers and writers, we should not only be familiar with the literature of the subject we are writing about, but we should assume that we are familiar with some of the thoughts and ideas of the subjects collateral to the one upon which we are writing; otherwise our work will assume a very narrow place in the literature of our profession and the very point that we wish to make (which is often a worthy and useful one) will be entirely lost.

It not infrequently happens that some of our literature assumes a position wholly antagonistic to the opinion of others, and for no other reason than that the writer wishes to gain notoriety for himself, instead of bringing out something which is true and useful to the profession.

In a recently published article on porcelain, Dr. F. E. Roach gave expression to the names of such and such men as having been successful in the art of porcelain work. This, with a very few exceptions, is the only example of a writer upon this subject publicly acknowledging the value of the work and ideas of others. Such expressions lend strength to his opinion and show that he appreciates the work of others and is more or less familiar with what they have done.

If there are good reasons for our differing from the opinions of others, we should do so with a feeling that their errors, should we interpret them as errors, are made with honest intentions, for no true thinker or writer on dental subjects can fail to see that, in the main, most writers are sincere in their efforts, and that sometimes their thoughts mean a great deal more than the authors at the time were able to express; especially is this true if they assume a modest role and are not writing or speaking for public applause. Dr. C. N. Johnson once said to me that "a true writer and thinker gets a great deal more good out of his own efforts than do those who read his writings." That, in the main, is true! We should not investigate

and write altogether for others, but we should investigate for the sake of truth, if the investigation is to prove beneficial to us. Then we should give our results to our fellow men for their use, provided they wish to accept them in the same spirit in which they are given. We should never put our thoughts forth as though they had never been written before, but should keep constantly in mind the fact that the profession of dentistry has never discovered a law in mechanics, nor in chemical or biological subjects. We should remember, at the same time, that we are truly a utilitarian profession and can proudly boast of utilizing and applying the laws, discovered by others, for the benefit of humanity.

The thing that will reflect the greatest discredit to the dental literature of this age will be that our thoughts are not well studied, and that we have not given expression to our valuation of the writings of other members of our profession. We should bear in mind that the brother who works by our side is a part of our whole existence, and without him our lives could never have been anything like as nearly complete as they are had it not been for his co-operation. If we wish to have the educated and thinking public respect us and our work we should publicly respect each other. As it is at the present time, a vast majority of our profession are self advertisers. Advertising of this kind is admission on the part of the profession that its culture does not rise above the level of that of others whose opportunities have in no sense been equal to what ours should be. If we are properly educated we are able to logically and gladly interpret the researches and thoughts of others as they are handed down from generation to generation.

G. W. C.

SOCIETY ANNOUNCEMENTS AND REPORTS OF MEETINGS

THIRD AND FOURTH DISTRICT DENTAL SOCIETY OF NEW YORK.

The meeting of the Third and Fourth District Dental Association was held October 17th and 18th at Schenectady, N. Y.

MISSOURI STATE BOARD OF DENTAL EXAMINERS.

The newly appointed state board of dental examiners met and organized at Jefferson City, Mo., Monday, October 9th. Dr. R. D. McIntosh, of Monett, was chosen as president of the board.

INLAY CLUB OF THE IOWA STATE DENTAL SOCIETY.

The meeting of the Inlay Club of the Iowa State Dental Society was held October 16th and 17th at Ottumwa, Iowa. The following officers were elected for the ensuing year:

President—J. B. Montfort, of Fairfield.

Vice-President—Dr. C. E. Woodbury, of Council Bluffs.

Secretary-Treasurer—Dr. G. W. Slingluff, of Burlington.

OHIO STATE BOARD OF DENTAL EXAMINERS.

The regular semi-annual meeting of the Ohio State Board of Dental Examiners will be held in Columbus November 28, 29 and 30, 1905, at the Hartman Hotel. Applications for examination should be filed with the secretary by November 18. For further information address H. C. Brown, secretary, 185 East State street, Columbus, Ohio.

INDIANA STATE BOARD OF DENTAL EXAMINERS.

The Indiana State Board of Dental Examiners will hold their next regular meeting at Ft. Wayne, January 9-11, 1906, in the office of Dr. J. S. McCurdy. All applications for examination must be filed with the secretary not later than January 4. For further information apply to the secretary, F. R. Henshaw, Middletown.

OHIO STATE DENTAL SOCIETY.

The fortieth annual meeting of the Ohio State Dental Society will be held in the Great Southern Hotel, Columbus, December 5-7, 1905. An exceptionally strong program of papers and clinics has been provided and we have every assurance of a highly successful meeting. Come!

F. R. CHAPMAN, Sec'y,
305 Schultz Bldg., Columbus.

CENTRAL TEXAS DENTAL SOCIETY.

The quarterly meeting of the Central Texas Dental Society was held at Belton, Texas, October 21st. The meeting was a success and very interesting. Papers were read by Dr. Guess of Rogers and Dr. Bray of Waco. Officers were elected as follows:

J. K. Campbell, of Temple, president; W. B. Foreman, of Waco, vice-president; J. M. Murphy, of Temple, secretary; W. H. Guess, of Rogers, member executive committee.

TRI-CITY DENTAL SOCIETY.

The Tri-City Dental Society met November 1st in the offices of Dr. Van Slyke, South Omaha, Neb. The meeting was an interesting one. Papers were read and discussions held on the following: "The Preparation of Cavities," Dr. W. A. Cox; "Porcelain Art," Dr. L. G. Van Slyke; "The Co operation of Dentists," Dr. P. J. Barber, of Omaha.

ROCK ISLAND COUNTY DENTAL SOCIETY.

The annual meeting of the Rock Island Dental Society was held October 17th at Rock Island. The society met in the afternoon and evening, the afternoon being devoted to clinics and the evening to a banquet and papers at the Harper house. Following the banquet the election of officers was held, resulting as follows:

President—R. M. Pearce, Rock Island.

First Vice-President—H. G. Trent, Rock Island.

Second Vice-President—M. M. Everett, Atkinson.

Third Vice-President—Owen C. Hays, Cable.

Secretary—W. T. Lockhart, Moline.

Treasurer—C. L. Silvis, Rock Island.

NORTHERN ILLINOIS DENTAL SOCIETY.

The eighteenth annual meeting of the Northern Illinois Dental Society was held Wednesday and Thursday, October 18th and 19th, at Elgin, Ill. The following officers were elected for the ensuing year:

President—Frank Cheeseman, Chicago.

Vice-President—C. L. Snyder, Freeport.

Secretary—A. M. Harrison, Rockford.

Treasurer—H. G. Logan, Aurora.

Executive Committee—M. L. Haniford, Rockford.

Superintendent of Clinics—C. W. Robison, Aurora.

The next meeting will be held in Aurora.

SOUTHERN ILLINOIS DENTAL ASSOCIATION.

The twentieth annual convention of the Southern Illinois Dental Association was held at Litchfield, Ill., November 1st. The following officers were elected for the ensuing year:

President—C. E. Uyningham, Harrisburg.

Vice-President—W. S. Wallace, Spartia.

Secretary—H. H. Burnett, Upper Alton.

Treasurer—A. G. Strange, Litchfield.

Executive Committee—J. J. Hood, Sparta; J. C. Reader, East St. Louis; T. T. Baker, Litchfield.

The association will meet at Centralia in October, 1906.

SOUTH DAKOTA STATE BOARD OF DENTAL EXAMINERS.

The next meeting of the South Dakota State Board of Dental Examiners will be held at Sioux Falls, S. D., January 16, 1906, beginning at 1:30 p. m. sharp. All applicants for examination must bring diplomas from reputable dental colleges or affidavit of having been engaged in the practice of dentistry for at least three years immediately preceding said examination. Instruments and materials necessary to do all kinds of operative and prosthetic work will be needed at this examination. Vulcanizer and lathe will be furnished by the board. All applications must positively be in the hands of the secretary by January 9th.

G. W. COLLINS, Secretary.

Vermillion, S. D.

INSTITUTE OF DENTAL PEDAGOGICS.

The annual meeting of the Institute of Dental Pedagogics will be held in the Fifth Avenue Hotel, New York, December 28, 29 and 30. The following subjects will be discussed:

Anesthesia, Extraction, Operative Technic, Prosthetic Technic, Crown and Bridge Technic, Orthodontia Technic, Porcelain Technic, Chemistry, Anatomy and Oral Surgery, Teaching in the Infirmary.

The main idea of the meeting will be, "How should these subjects be presented to a dental student?" This will be the most important dental meeting of the year, especially for teachers. As far as possible every demonstrator, as well as the professors, should make an effort to be present.

W. E. WILLMOTT,

Secretary.

THE TRI-CITY DENTAL SOCIETY.

The Tri City Dental Society of Omaha will meet at a banquet table at the "Calumet" Wednesday evening, December 1, at 6:30 p. m. Members of dental societies out of the city are cordially invited to attend this meeting. Kindly notify the secretary in advance. E. H. BRUENING, Secy.

FIRST ANNUAL CLINIC OF THE FRATERNAL DENTAL SOCIETY OF ST. LOUIS, NOVEMBER 20-21, AT THE BARNES DENTAL COLLEGE.

Special features of the meeting will be a series of lectures on "Cavity Preparation," "Methods and Principles of Packing Gold," "Methods and Principles of Finishing Fillings," by Dr. E. K. Wedelstaedt, of St. Paul.

The following well known members of the Black and Wedelstaedt Clubs will be present and clinically demonstrate "extension for prevention" to its fullest extent: Drs. A. C. Searl, Owatonna, Minn.; J. F. Wallace, Canton, Mo.; C. W. Booth, Cedar Rapids, Iowa; J. J. Booth, Marion, Iowa; William Finn, Cedar Rapids, Iowa; J. B. Pherrin, Central City, Iowa; Ed. S. Brown, Edina, Mo.; W. T. Rutledge, Monroe City, Iowa, and S. E. Wallace, La Bell, Mo.

PORCELAIN WORK.

Porcelain work will be fully demonstrated by Drs. F. E. Roach, Chicago; W. L. Ellerbeck, Salt Lake City; George T. Banzett, Chicago; W. H. Cudworth, Milwaukee, and Craig W. Work, Ottumwa, Iowa.

Other clinics on various subjects will be given by Drs. W. L. Reed, Mexico, Mo.; J. B. Howell, Paducah, Ky.; C. L. Rose, Fargo, N. D.; F. B. Lawrence, Eldorado, Kas.; George D. Sitherwood, Bloomington, Ill.; A. Geiser, Davenport, Iowa; Fred Westerfield, St. Charles, Mo.; Otto J. Fruth, St. Louis; Richard Summa, St. Louis, and others.

EXHIBITS.

The following dealers have signified their intention to be present and display: S. S. White Dental Manufacturing Company, Dr. Jenkins, porcelains, Klewe & Co., A. C. Clark & Co., St. Louis Dental Manufacturing Company, John Nolde Dental Manufacturing Company, Hisey Dental Manufacturing Company, Denthal Chemical Company, Lambert Pharmacal Company, Lee S. Smith & Sons, Cen-

tury Dental Laboratory Company, W. M. Berry Dental Laboratory Company, Sanitol Chemical Company, R. C. Brophy & Co., Keeton Williams Gold Company, Horlick's Food Company, Kress & Owens, Okland Chemical Company, McKesson & Robbins, and others.

RAILROAD RATES.

The Western Passenger Association and South Western Excursion Bureau have granted a rate of *one and one-third* fare, plus 25c validation fee, certificate plan, for this meeting, for the states of Missouri, Iowa, Minnesota, Kansas, Nebraska and Illinois, on and west of the line of the Chicago & Eastern Illinois Railroad.

HOTEL HEADQUARTERS.

At the Jefferson Hotel, Twelfth and Locust streets. Rooms for one, without bath, \$1.50 and up; rooms with bath, \$2.50 and up. Rooms for two, without bath, \$2.00 and up; rooms with bath, \$3.00 and up.

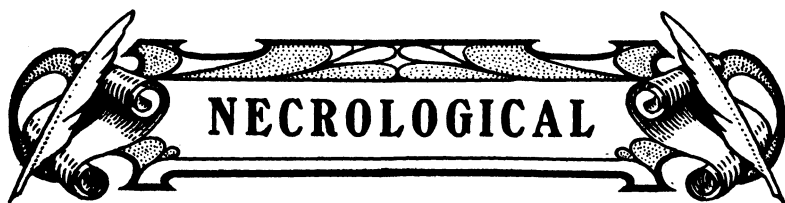
EXHIBIT SPACE.

Exhibit space may be obtained by application to the secretary. If you have a clinic to give send your name at once to the Supervisor of Clinics.

A cordial invitation is extended to the profession to be present and assist in making this meeting, limited in scope but limitless in importance, the best ever held in this section.

D. O. M. LE CRON, Supervisor of Clinics,
S. H. VOYLES, Secretary, Missouri Trust Building.
306 Humboldt Building.

BURTON LEE, President.

A decorative banner with a central rectangular frame containing the word "NECROLOGICAL" in a bold, serif, all-caps font. The banner is flanked by ornate scrollwork and features two crossed quills on each side, pointing towards the center.

NECROLOGICAL

DR. JOHN P. VON LACKUM.

Dr. John P. Von Lackum died suddenly at his home in Waterloo, Iowa, November 7th, of septic poisoning, due to rupture of the gall duct. The doctor was attending to his duties in the office until the afternoon previous to his death, being ill only a few hours. His death was a shock to his many friends in Waterloo and Chicago.

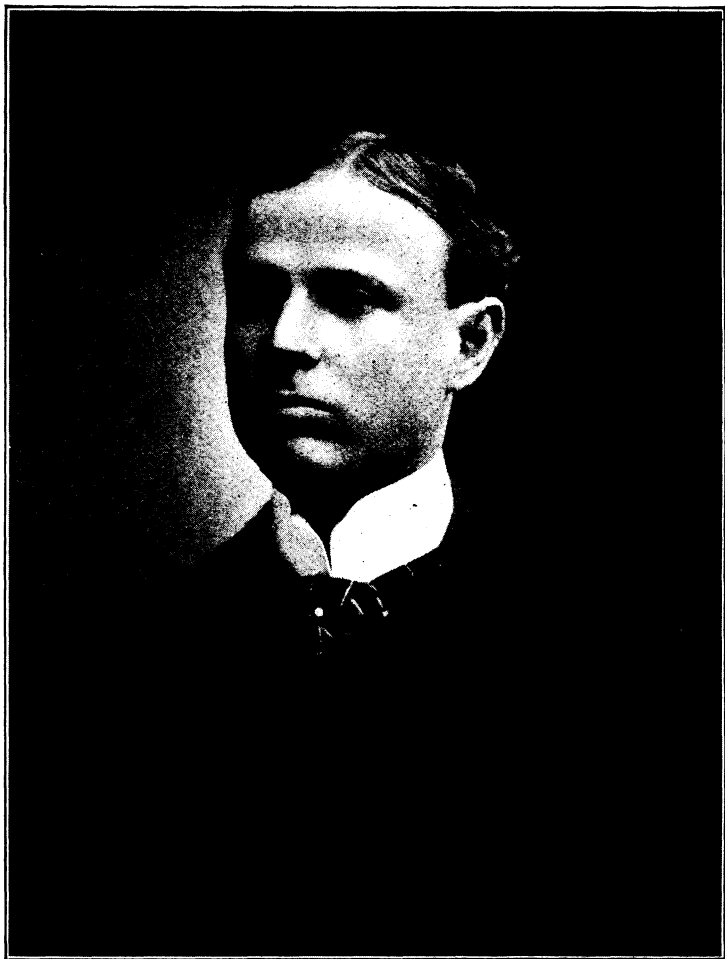
He was born in Winona, Minn., September 21, 1864, and was a son of Dr. and Mrs. Peter Von Lackum, who removed from Minnesota to Iowa when deceased was a small boy. Afterward they located in Waterloo, and deceased attended the public schools of that city during his boyhood.

Finishing his school work in Waterloo he went to Iowa City, where he graduated from the dental department of the State university. His popularity among his classmates resulted in his election as class president. He practiced his profession in Waterloo, also spending a number of years as representative of a manufacturer of dental chairs, with an office in Chicago. He returned to Waterloo about four years ago and re-entered the practice of his profession.

He was married in Waterloo, June 17, 1891, to Miss Genevieve M. Hartman. Four children were born to them, all of whom survive.

He was known for his gentlemanly qualities, scholarly attainments, and his devotion to his family. His ideal in life was perfect home environment and his leisure moments were always spent with wife and children in the enjoyment of home surroundings and companionships.

His loyalty to friends was unusually strong and absolutely unwavering, and his manly life and faithfulness to the principles which formed his ideals influenced his acquaintances in such a manner as always to result in genuine and sincere affection. He was one of those rare characters whom people love and the sadness of his death is lightened by the memory of the sweetness of his life.



DR. JOHN P. VON LACKUM,



CHARLES T. SEARLE.

Charles T. Searle, of California, the American dentist, died at St. Petersburg of typhoid fever, October 20th.

OLIVER D. JONES.

Dr. Oliver D. Jones, a prominent dentist of Marquette, Mich., died suddenly while seated at the dinner table with his family. He was sixty years old.

DR. S. STEPHEN MCCARTHY

Dr. Stephen McCarthy, of South Boston, Mass., died October 24th in City Hospital, Boston, of typhoid pneumonia, with which he had been ill for six weeks. He leaves a wife and three children.

DR. BENTON M'MILLIN PIPKIN.

Dr. Benton McMillin Pipkin, who died of typhoid fever at Lafayette, Tenn., October 5th, was one of the most prominent young men in the county. He graduated from the University of Tennessee, March of this year, locating in Lafayette, and was having a fine practice.

DR. D. RHINE HERTZ.

Dr. D. Rhine Hertz, a prominent dentist of Ephrata, Pa., died October 15th, aged sixty-eight years. He was one of the most public-spirited residents of the borough and was largely instrumental in securing the erection of its handsome soldiers' monument.

DR. DANIEL B. RAMSEY.

Dr. Daniel B. Ramsay, aged sixty-eight, one of the pioneer dentists of Pittsburg, Pa., died October 10th at his home in Idlewood after a long illness. Dr. Ramsay was one of the first dentists to engage in the profession in that city, having been a practitioner there for forty years. He studied dentistry in Philadelphia and Downingtown, Pa., until the outbreak of the Civil War, when he enlisted and served throughout the struggle.

MISCELLANEOUS

STERILIZER.

A simple dish for sterilizing instruments is a seamless copper-nickeled shaking dish such as bartenders use, costing about sixty cents.—*Items of Interest.*

PORCELAIN CROWN.

A porcelain crown is as readily, as easily, and as quickly made as any other crown. It is artistic and permanent, and it is the up-to-date crown.—*Dr. G. D. Setherwood, Cosmos.*

TO PREVENT WARPAGE OF PLATES.

When polishing a thin rubber or gutta percha plate, fill the same with plaster before putting it on the polishing lathe, first filling the undercuts with wax.—*Tri-State.*

DRYING OUT ROOT-CANALS.

If a chip blower is heated over an alcohol lamp the air taken in from the alcohol flame is converted into formaldehyde gas, the best disinfectant; hence the advantage over an electric hot air syringe.—*Dr. Homer Almon, Dental Review.*

HYPERSENSITIVE DENTINE.

In acute hyperæsthesia nervocidin surprises by its effects, suppressing in a few hours all sensitivity during excavating and without affecting the vitality of the pulp.—*Dr. F. Aguilar, Pacific Dental Gazette.*

INLAY RETENTION.

For very small inlays press the foil used for the matrix between sandpaper, giving it a granulated surface, which, being reproduced on the under side of the inlay, is quite sufficient to retain it without grooves.—*Dr. M. C. Rippon, British Dental Journal.*

POLISHING GROUND PORCELAIN.

When it has been necessary to grind a crown, or facing, the porcelain can be repolished equal to the original baked glaze by using oxide of tin on a wet Barker's wood point used on lathe at high speed.—*Tri-State.*

TROUBLESOME FULL DENTURES.

The key to most of the difficulties in troublesome full dentures lies in articulation. Find and correct the peculiarity in the articulation and an otherwise useless outfit can be made a reasonably working concern.—*Dr. Mark G. McElhinney, Review.*

TO TRUE GRINDSTONES.

To true lathe grindstones, hold a piece of chalk lightly against the revolving stone, using a hand rest so that the chalk touches the bulging part. Hold the chalked part of this stone against another revolving stone in the lathe firmly with a hand rest, thus truing one stone with another.—*Items.*

A USEFUL HINT.

A piece of alum of suitable size kept in a convenient place will be found useful where the operator's hands perspire freely. Draw the fingers over the alum once and it will usually be effectual.—*Dr. W. J. Hemphill, Summary.*

WORTH KNOWING.

I have had two very stubborn cases of blind abscess. After trying everything I could think of I used Cresylone. It worked wonders. Two treatments cured both cases. I filled the roots of the teeth and so far they are perfect.

The beauty of this agent is its effect will last a month or more. It controls decomposition even if placed in the most putrescent tooth.—*Thomas Sheridan, D. D. S., Jacksonville, Fla., Hints.*

ALUMINUM AS A WHETTING AGENT.

Though a metal, aluminum possesses the structure of a fine stone, has a strong dissolving power, and develops upon use for honing an exceedingly fine metal-setting substance of greasy feel, while showing great adhesion to steel. Knives, etc., treated with it quickly obtain such a fine razor-like edge that even the best whetstone can not produce a like result.—*Medical Times.*

COMMUNITY OF INTEREST.

The Stork and the Doctor met at the door.

"We should be friends," said the Doctor. "We have much in common."

"It is true we are both bipeds," admitted the stork, guardedly.

Here the Doctor showed his bill.

"One hundred dollars!" exclaimed the Stork. "Well, you are a bird!"—*Puck*.

TO PREVENT RECURRENT SEPSIS IN ROOT CANALS.

Cleanse and sterilize canal, dip a small wisp of cotton wrapped on a suitable broach in tincture of iodine and then into finely powdered tannic acid and introduce to the apical end of the affected canal. Absorb any excess iodine with cotton, wipe the canal with absolute alcohol, and fill with preferred material. It is the exception and not the rule for the teeth so treated to give any further trouble.—*D. Sheehan, Dental Record*.

REMOVAL OF CROWN SET WITH GUTTA PERCHA.

For the application of heat a very satisfactory little Bunsen can be made by removing the curved platinum point of an abscess syringe, inserting it in a piece of hard rubber tubing of proper diameter. A six-inch length of tubing affords a good hand piece. Attach to gas connection with soft rubber hose—red rubber hose of thin pliable weight is preferable. This can be carried to any part of the mouth with perfect safety.—*Dr. Benson Sellery, Northwestern*.

COMPRESSED AIR IN DENTISTRY.

After giving nitrous oxid or any other general anæsthetic, the patient is revived quickly by the application of a strong force of compressed air directed squarely toward the face.—*Dr. George Zederbaum, Dental Digest*.

TREATMENT FOR A PULPLESS SORE TOOTH.

Equal parts of oil of cloves and beechwood creosote, and enough of zinc oxid to make a paste. Use cotton fiber (just enough to convey it to the canals). A few treatments will cure almost any case.—*Brief*.

THE DENTAL SURGEON.

We note that our esteemed contemporary, *The Dental Surgeon*, has failed to give THE AMERICAN DENTAL JOURNAL credit for articles clipped. We have religiously observed the courtesy of giving credit for articles clipped from *The Surgeon* and would suggest you "play fair," brother editor.

A REMEDY FOR TOOTHACHE OR NEURALGIA.

For those occasional cases of toothache or neuralgia which defy local treatment for the time, the following has given me good results, varying the dose as conditions might require:

R	Phenacetin	gr. 35
	Ext. Gelsemium	gr. 2½
	M. et ft. in chart	No. 5

Sig.—One when in pain. Repeat in two hours if necessary.—
Dr. R. G. Joslin, Summary.

SAVE DECIDUOUS PULPS.

It is rather difficult to anchor amalgam fillings in the saucer shaped cavities generally encountered in deciduous teeth, and as the pulp is so large in comparison with the size of the tooth it is hard in many cases to give a retentive shape to the cavity without exposing the pulp. But the pulp should be saved and protected, for under normal physiological conditions, the pulp of deciduous teeth seems to remain active until the entire tooth, with the exception of the cap enamel, is absorbed, and the latter is ready to tumble off.—*Dr. C. L. Merriwether, Tri-State.*

REPLANTATION.

To replant a tooth first remove the clots of blood from socket as soon as possible after the tooth has been extracted, after which I always pack socket with some good antiseptic, preferably oil of cloves. This being done, scrape the root, take out the pulp, and fill the root canals. Then resect the end of the root and invest tooth in some good material for the filling. After the filling is in place remove the tooth, clean well and render aseptic by dropping it into a small dish of oil of cloves, letting it remain there until the socket is ready for its reception. I am very careful not to touch the tooth after this, always handling with sterilized pliers.—*Dr. J. F. Austin, Digest.*

PREDISPOSITION.

I have had in mind: First, that we meet patients daily who are very much predisposed to dental irritation. Second, that pathologic conditions in these cases should receive the extremest care; the usual care will not suffice, because the prognosis is bad. Third, we should be able to recognize the physical signs of predisposition when-

ever they present, and that in dealing with predisposition from nervous prostration from whatever cause we should remember that those patients are entitled to our most careful consideration. The insane of all civilized nations are held immune from all criticism. Verily, some of our neurasthenic patients deserve equal consideration, for they are only a step from insanity.—*Dr. J. D. Patterson, Era.*

A HINT ON IMPRESSION TAKING.

To prevent the plaster from flowing down the patient's throat when taking an impression, prepare the tray as follows: Puncture the impression tray near the heel, making several holes about a quarter of an inch in diameter. Build up the heel with wax to reach the palate, and from this carry a piece of sheet wax forward under the tray. When taking the impression the surplus plaster will be forced through the holes and carried forward by the sheet of wax under the tray, thus effectually protecting the throat. The same result may be attained by cutting a V-shape piece from the rear of the tray and building with wax, as described above.—*Dr. F. W. Stephan, Review.*

SUCCESS IN ORTHODONTIA.

When the dentist becomes familiar with the principles of modern orthodontia we will see fewer failures, such as the treatment of cases in which the mal-occlusions of the upper arch have been corrected without any consideration being taken of the lower arch. The question may be raised that the general practitioner is forced to do some orthodontia because the specialists are too few. Whenever the dental profession shows a greater tendency toward recommending patients suffering from mal-occlusions to men devoting their entire time to the treatment of such cases specialists will become more numerous and until that time the general practitioner who attempts to do orthodontia must be sure that anything he does will not be of such nature as to produce harm in after years. He must not forget that the so-called simple case of mal-occlusion in which he sees only a "crooked tooth" is but the symptom of some greater trouble. That a tooth crowded out of the arch is but the symptom of a greater mal-occlusion. He should avoid extraction for the correction of mal-occlusions and all cases which he treats must be toward the high ideal of normal occlusion.

**A DENTAL INVENTION WHICH PERMITS OF PAINLESS
WORK UPON TEETH.**

By an invention of Dr. Crittenden Van Wyck, of San Francisco, Cal., all dental work, such as drilling into a tooth to remove decay and prepare it for a filling, or to grind down a tooth for a gold cap, or to remove nerves, may now be done painlessly. This is a wonderful advance in dental science, and will take away all dread of approaching the dental chair, when such work becomes necessary. The method has been proven successful during four years' trial. The device of which this note is a brief description is called the Van Wyck obtunder. By its use a tiny spray of ether is thrown upon the tooth to be operated upon. The rapid evaporation of the ether produces coldness, and within a few moments the tooth becomes perfectly numb and all sensation is lost. The dentist can now use his drilling machine, and bore out all decay and properly prepare the cavity for a filling, the spray continuing to run during the cutting operation. The method is therefore very simple and effective. By placing a few drops of a strong perfume in the ether glass receptacle, the odor from the spray is made welcome, the ether odor being almost entirely disguised. No bad effects are noted in any manner from the use of this method. The first shock of coldness is prevented by placing a piece of cotton upon the tooth to be sprayed upon, and thus the temperature is reduced gradually and without any pain. The normal temperature returns to the tooth as soon as the spraying is discontinued, and no after effects of any kind are to be feared. The spray is formed by using twenty pounds of compressed air, and is regulated by a valve. It is directed upon the tooth by a flexible metallic tubing, bent in such a manner as to throw the spray upon any tooth desired.—*New York Scientific American.*

PERSONAL AND GENERAL

Office Robbed.—Dr. S. P. Miller, of Macon, Mo., was robbed of about \$15 worth of gold November 1st.

Rabell-Whiting.—Dr. Charles Francis Rabell, New York, was married to Miss Irene Whiting, of Chicago, Monday evening, November 6th.

Goslee-Leach.—Dr. W. A. Goslee, of Auburn, Neb., and Miss Bessie Leach, who is postmistress (or postmisses), were married October 29th.

Dodson-Miller.—Dr. Clarence O. Dodson, a young dentist who located at Greentown, Ind., about a year ago, went to Elkhart, October 31st, where he was married to Miss Rose Miller, a charming young woman of that city.

Partnership.—Dr. D. R. Allender, of Boone, Iowa, has taken a partner, the young man being Dr. A. W. Gaumer, graduate of the Keokuk Dental College, who, during the past year, has been located at Columbus Junction, Iowa.

Robberies.—The office of Dr. H. V. McGregor, a dentist of Atlantic, Iowa, was robbed of \$50 worth of gold by a night prowler on October 7th. Dr. Pratt, of Winterset, Iowa, lost \$100 on October 9th. Dr. Cleveland, of Bushnell, Ill., on October 27th, lost considerable. Dr. J. P. Dillard, of Charleston, Ill.; robbed of gold.

Hemsworth-Butts.—Dr. Leroy Hemsworth, of Cedar Rapids, Iowa, was married to Miss Frances Butts, of Montezuma, November 4th. The bride is a graduate of the Cedar Falls State Normal and a successful teacher, the groom of the Dental Department of State University of Iowa. Their home will be at Marathon, where the groom is in practice.

Woman Sues Dentist.—Claiming \$5,000 damages for a broken jaw, Miss Beatrice McLoughlin, of Philadelphia, Pa., has instituted suit in Common Pleas Court against George B. Simmerman, a dentist. The woman charges that on June 23d last the defendant extracted a tooth so unskillfully that her jawbone was splintered, disfiguring her face.

Robbed.—The dental office of Dr. Gemmell, of Lockport, N. Y., was robbed on October 20th. The thief gained entrance through a side window, taking \$20 worth of gold which was in a drawer of the doctor's desk. This is the second dental office that has been entered within a week. Dr. Sharp was the other victim.

Ruge-Grise.—Dr. Max Ruge, a well-known Valparaiso, Ind., dentist, and Miss Nellie Ethel Grise, a Mishawaka, Ind., society belle, were married on November 1st in the presence of a company which had gathered for a banquet at Valparaiso in Dr. Ruge's honor. A clergyman, Rev. A. C. Wilson, stepped from a place of concealment in the hotel as the guests were moving

toward the dining room and tied the knot before the assemblage had time to get over its surprise.

Dentist Injured.—Dr. Edward Blackshaw, a dentist of Urbana, Ill., was struck by a street car November 5th and seriously injured. He was walking on the car track when he stepped off to let an interurban car pass. He stepped back on the track, not observing the car following the interurban, which struck him, inflicting a wound on the head. Dr. Blackshaw is reported to be in a very serious condition. As he is very old, considerable fear is expressed as to the outcome of the accident.

Seven Dentists Named in Divorce Proceedings.—Seven dentists were named in a petition for divorce filed by Julius H. Klein against Anna Klein in Circuit Court, November 3d. Of these, three are alleged to have been too good friends of Mrs. Klein after their marriage and the others merely as friends before they were married. They were married September 14, 1904, he says, and separated February 25, 1905. Prior to their marriage, he says, she kept company with seven different dentists and the petition names them.

Accused of Stealing Teeth.—Accused of the theft of 3,600 porcelain artificial teeth, R. W. Fordyce, a traveling salesman from Lincoln, Neb., was arraigned on October 17th before Justice Prindiville in his private court. Fordyce was arrested upon a warrant sworn out by Aroline Cogswell, of Chicago, wife of Asa A. Cogswell, 1133 Pratt avenue, a dealer in dentist's supplies. According to the attorneys representing Fordyce, \$200 is due him for commissions from Cogswell, his former employer. When he was unable to collect the money he held the teeth.

The Dentist and the Alligator.—Roy Farrell Greene, the president of the American Society of Curio Collectors, told at a dinner of dentists an appropriate story. "A dentist," he said, "was once traveling in the East, and in the Ganges his boat overturned and he was obliged to strike out for the shore. As the dentist swam sturdily through the muddy water, an enormous alligator suddenly rose up before him. The alligator opened his enormous jaws, and the next instant would have been the dentist's last, only, just in time, the man happened to notice the great reptile's sharp, white teeth, and an idea struck him. He drew a probe from his pocket, and, pressing it into the alligator's gums, he said: 'Does this hurt you?' The alligator screamed with pain, and the dentist, amid its great agony, made good his escape."—*Philadelphia Inquirer*.

Young Dentist a Suicide.—George H. Stephens, a young man, aged 25 years and single, who for four months previously had practiced the profession of dentistry in Yates City, Ill., committed suicide October 15th by shooting himself through the heart with a revolver. Deceased left a letter, as follows: "Please do not think me crazy. I am the sanest man in town. I have lived a fair life and am not afraid to meet my Maker. I feel that I have not made a success of my chosen profession, and that is the only reason for the committing of this deed. Good-by to all my friends.—G. H.

Stephens." Dr. Stephens' parents reside in Apple River, Ill., where the doctor formerly resided. Deceased was a graduate of the dental department, University of Illinois.

The Murder of Bessie Bouton.—The readers of this journal will, no doubt, recall the description of the body found on Cutler Mountain, in Colorado, about a year since. Through this description, with diagram, the identity of the girl was established, and now another chapter is added to the tragedy. The following is from the Chicago *Record-Herald*: "The dramatic career in crime of Milton Franklin Andrews, slayer of Bessie Bouton in Colorado, and the attempted murderer of W. C. Ellis, the Australian turfman, was brought to a close with a murder and a suicide. Brought to bay by officers of the law after a long and exciting pursuit, the house in which he and Nulda P. Olivia, his woman companion, lived, surrounded by detectives, Andrews added the last chapter to his remarkable history by sending a bullet through the brain of the woman and then, as the officers were about to break into his room, ending his own life to avoid capture. It was another attempt to murder which connected Andrews with the slaying of Bessie Bouton, whose case long was a sensational mystery. Her mutilated body was found on the side of Cutler Mountain, near Colorado Springs, Colo., a little more than a year ago. No clew to the identity of the woman was obtained for weeks, her teeth at last establishing her identity at the hands of her mother as the missing woman, whose home was in Syracuse, N. Y."

REMOVALS.

Dr. C. R. Keirstead from Muncie, Ind., to Indianapolis, Ind.; Dr. F. G. Maskrey, of Sabula, Iowa, to New Mexico; Dr. Oliver J. O'Neal from Clarksville, Tenn., to Chattanooga, Tenn.; Dr. M. W. Hawkins from Corunna, Mich., to Bangalore, India; Dr. Dullam from Manistique, Mich., to the Pacific coast; Dr. George E. Bratten from Manchester, Ohio, to Norwood, Ohio; Dr. J. W. Blackburn from Bloomingdale, Ohio, to Manchester, Ohio; Dr. Toles from Albion, Mich., to Grand Rapids, Mich.; Dr. F. A. Haffa from Parkersburg, Iowa, to Waterloo, Iowa; Dr. J. E. O'Grady from Dumont, Iowa, to Parkersburg, Iowa; Dr. C. W. Percival from Grand Island, Neb., to Gibbon, Neb.; Dr. S. E. Fisher from Urbana, Ill., to Fairfield, Iowa; Dr. F. F. Dempsey from Oshkosh, Wis., to Monticello, Wis.; Dr. E. L. Graves from Milwaukee, Wis., to Oakfield, Wis.; Dr. Ernest Arston from Chicago to Rockford, Ill.; Dr. R. G. McKenzie from Port Huron, Mich., to Detroit, Mich.; Dr. Dannatt from Anamosa, Iowa, to Toledo, Ohio; Dr. O. W. Langston from Marion, Ind., to Indianapolis, Ind.; Dr. D. W. Clark from Hartland, Wis., to Prairie Du Chien; Dr. A. G. Johnson from Akron, Ohio, to Cincinnati, Ohio; Dr. Doran from Oxford, Iowa, to Rock Island, Ill.; Dr. Guy Farley from Whittemore, Iowa, to De Smit, S. D.; Dr. F. L. Kreep from Covington, Ind., to Bartlesville, Ind. Ter.; Dr. W. A. Sherman from Storm Lake, Iowa, to Des Moines, Iowa; Dr. W. T. Easton from Kalamazoo, Mich., to Glencoe, Ill.; Dr. J. N. Moffatt from Davenport, Iowa, to Colorado; Dr. T. H. Thurand from Dawson, Ga., to Columbus, Ohio.

P A T E N T S

801,215. Dental Engine Attachment. Franklin O. Cates, St. Louis, Mo.
Filed July 23, 1904. Serial No. 217,827. Fig. 1.

Claim.—1. In combination with a dental engine having a staff and a drive belt disposed in proximity thereto, of a sleeve loosely mounted on the staff, a grinding disk mounted on the sleeve, a pulley on the axis of the disk and means for bringing the pulley into engagement with one of the laps of the belt, substantially as set forth.

2. An attachment for dental engines provided with a staff and a drive belt, comprising a sleeve having a recess at the lower end of its peripheral wall, a notch at one side of the recess, a laterally disposed tubular bearing carried by the sleeve, a grinding disk having an axis mounted in the bearing, a pulley on the axis adapted to be swung into engagement with one of the laps of the belt by rotation of the sleeve about the staff in proper direction and a pan carried by the sleeve beneath the disk, substantially as set forth.

802,683. Dental Swage. John R. Comins, Syracuse, N. Y., assignor to Frederick H. Cole, Syracuse, N. Y. Filed January 22, 1904. Serial No. 190,120. Fig. 2.

Claim.—The improved dental swage, consisting of an integral base block formed with a cylindrical socket extending from the top of the block part way toward the bottom thereof and terminating in a semi-spherical depression wholly within the block, the plunger formed at its inner end with a semi-spherical recess of the same diameter, and separate cohesive plastic packings retained by adhesion in the aforesaid socket and recess, substantially as described and shown.

802,408. Cervix Clamp for Use in Dentistry. William A. Rowe, Gloucester, Mass. Filed August 27, 1904. Serial No. 222,477. Fig. 3.

Claim.—1. In combination, a mouth prop, an extension on the prop and adjustable means carried by the extension for engaging a tooth.

2. In combination, a mouth prop, an extension thereon and arms carried by the extension for engaging a tooth.

3. In combination, a mouth prop, an extension thereon, a bar carried by the extension and split arms engaging the bar.

4. In combination, a mouth prop, an extension thereon, a bar carried by the extension, split arms engaging the bar and means carried by the arms for regulating the movement of the arms of the bar in one direction.

803,045. Dentist's Cervical Clamp. Lisle H. Babcock, Canisteo, N. Y., assignor to Eagle Dental Manufacturing Company, Philadelphia, Pa., a corporation of Pennsylvania. Filed March 11, 1904. Serial No. 197,679. Fig. 4.

Claim.—In a device of the character described, the combination of the bar, having the upturned free end, the jaw arm pivoted to said bar, the spring tending to separate said bar and jaw arm, the longitudinally slotted plate secured to and adapted to slide on said bar, said plate having the open forward extension and the upturned opposite end, the screw secured to said upturned portion of said plate and passing through a threaded hole in said upturned portion of said bar from effecting longitudinal adjustments of said plate, the screw secured to the said jaw arm and passing through said bar and the slot in said plate, and having the nut adapted to bear against said plate, substantially as and for the purpose set forth.

802,989. Dental Instrument. Albert P. Johnstone, Anderson, S. C. Filed July 6, 1905. Serial No. 268,482. Fig. 5.

Claim.—The combination of a pair of forceps, 1; a threaded setscrew, 14, passing through a threaded opening in one jaw and impinging against the other jaw of said forceps; a cup, 4, provided with perforations, 7, its bottom secured to the inner face of one jaw, and a cup, 5, provided with perforations, 8, its bottom secured to the inner face of the other jaw of said forceps, said cups so arranged that their open ends may meet and form a water-tight joint, 6, substantially as shown and described and for the purpose set forth.

803,474. Dental Applicator. James W. Dennis, Cincinnati, Ohio. Filed June 14, 1904. Serial No. 212,530. Fig. 6.

Claim.—1. A device of the class described, comprising a reservoir including a bottom, an anterior wall and a posterior wall, said reservoir conforming to the shape of the gums and when applied thereto incasing and isolating a plurality of the teeth, the anterior and posterior walls embracing and engaging the gums to hold the reservoir thereon, and means for feeding a treating agent to said reservoir.

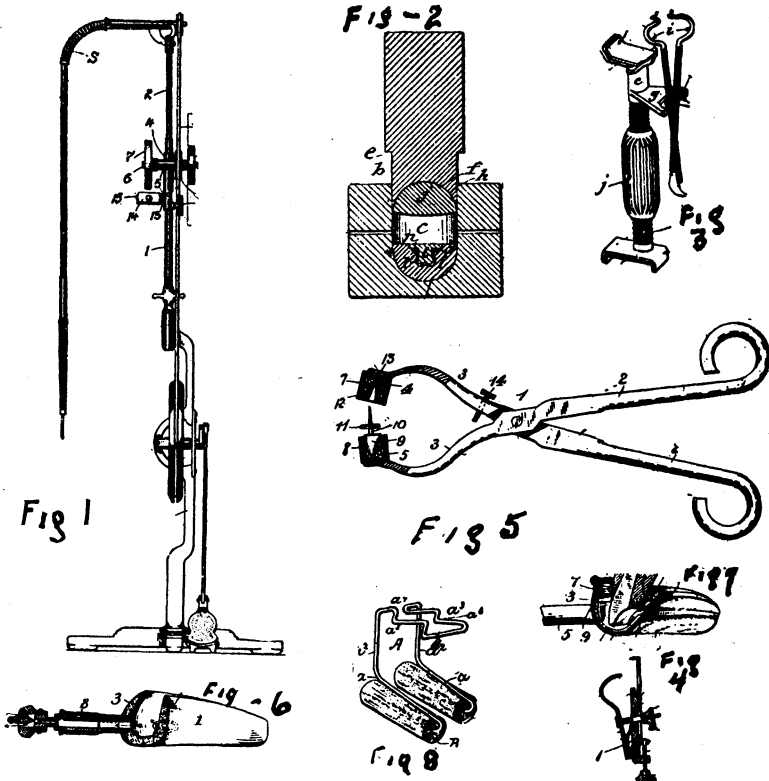
2. A device of the class described, comprising a reservoir adapted to be applied to the teeth to incase and isolate the same, means for feeding a treating agent thereto, and an outlet tube for removing the treating agent from the reservoir.

803,475. Dental Applicator. James W. Dennis, Cincinnati, Ohio. Filed November 15, 1904. Serial No. 232,866. Fig. 7.

Claim.—1. A device of the class described, comprising a reservoir adapted to be applied to the gums to incase and isolate the same and to enable a vacuum being formed within the reservoir, the interior of said reservoir having a main channel formed therein, and a series of branch channels communicating with the main channel and extending transversely thereof

to facilitate circulation of a treating agent in the reservoir, and means for introducing the treating agent to said reservoir.

2. A device of the class described, comprising a reservoir adapted to be applied to the gums to incase and isolate the same, said reservoir including



a bottom, an anterior wall and a posterior wall, the inner faces of said bottom and walls being channeled to facilitate circulation of a treating agent in the reservoir, and means for introducing the treating agent to said reservoir.

802,483. Dental Appliance. Bert G. Simmons, New Brunswick, N. J. Filed March 8, 1905. Serial No. 249,064. Fig. 8.

Claim.—A dental appliance, comprising a pair of substantially parallel clamping jaws, whereof each is adapted to carry a dental roll, said jaw ter-

minating in an overhanging looped member having zigzag or staggered walls for engagement with the cusps of the upper teeth, substantially as specified.

802,099. Dentifrice. Eustice H. Gane, New York, N. Y., assignor to McKesson & Robins, New York, N. Y., a firm. Filed July 29, 1904. Serial No. 218,947. (Specimens.)

Claim.—1. A powdered dentifrice, comprising a powdered abrading substance and a powdered percarbonate substance, which, when brought into contact with moisture, forms an oxidizing agent, such as hydrogen dioxid.

2. A dentifrice composition, consisting of a percarbonate of an alkali and an abrading powder, substantially in the proportions and for the purpose herein specified.

FOR SALE.

Office and furniture in town of 40,000, 100 miles from Chicago. Everything modern and doing a good business. Worth looking into. Address T. O. R., care AMERICAN DENTAL JOURNAL.

FOR SALE.

Half interest in established dental office in a Georgia college and manufacturing city of sixteen thousand, \$500 to \$800 cash per month. Books open for inspection to one who means business; \$1,000 buys half interest in practice; two complete outfits, and a complete laboratory. One Wilkerson chair, R. & R. cabinet, one Harvard chair and cabinet; all virtually new. Nicest and best located office in north Georgia. References given and required. Address Georgia, care Frink & Young, Chicago, Ill.

INDEX TO ADVERTISEMENTS.

	Page
American Hard Rubber Co., New York.....	16
Acestoria.....	14
Adams Mouth Prop.....	41
Adrian Spear Rutherford.....	84
American Cabinet Co., Two Rivers, Wis.....	18
Antidolar Mfg. Co., Springville, N. Y.....	17
Antikamnia Chemical Co., St. Louis.....	22
"Bargains".....	28, 24
Blair Dental Mfg. Co.....	Insert
Burke's Dental Specialty Co.....	25
Buffalo Dental Mfg. Co.....	5
Carborundum Rubber Disks.....	35
Caulk, The L. D. Co., Philadelphia, Pa.....	29
Chicago College of Dental Surgery, Chicago, Ill.....	42
Clark, A. C. & Co., Chicago.....	65
Croselmire & Ackor Co., Newark, N. J.....	32
Crocker, Samuel A. & Co.....	44
Dayton Dental Supply Co., Dayton, O.....	32
Dee, Thomas J. & Co., Chicago, Ill.....	31
Dental Suction Co., Loudonville, O.....	22
Dentists' Card Account System.....	49
Dentists Supply Co., New York.....	52 to 68
Donaldson Flask.....	6
Electric Sterilizer Co., St. Paul, Minn.....	41
Goldsmith Bros., Chicago, Ill.....	Outside Back Cover and 21
Green Chemical Company, Dr., Ionia, Mich.....	40
Hall & Ruckel, Sozodont.....	00
Hall, W. R. & Son.....	85
Hare's Dental Device Co., Dr.....	27
Higgins Dental Mfg. Co., Bellevue, O.....	11
Hisey Dental Mfg. Co., St. Louis, Mo.....	35
Hull Carbolated Dental Disk.....	50
Ideal Chemical Co.....	42
Indiana Dental College, Indianapolis, Ind.....	41
Ivory's Specialties.....	28
Jennelle Chemical Co.....	17
Kirkwood Mfg. Co.....	15
Kress & Owen Co., New York.....	00
Lambert Pharmacal Co., St. Louis.....	000
Lauderdale Annealer.....	2
Lauderdale Crown System.....	48
Lavoris Chemical Co., Minneapolis, Minn.....	9
Lennox Chemical Co.....	0
Louisville Dental Laboratory & Mfg. Co.....	47
Lindon Cereal Coffee Co., Benton Harbor, Mich.....	43
Michigan Drug Co.....	50
Mounted Carborundum Points.....	47
Monmouth Exposition.....	1
National Dental Improvement Co., Mt. Vernon, O.....	27
Nelms, Henry & Sons, Philadelphia, Pa.....	64
Oakland Chemical Co.....	Second Cover
Paragon Dental Mfg. Co. Racine, Wis.....	25
Pustolene, J. A. Sprague.....	43
Permaneo.....	45
Randall Faichney Co.....	38
Ritter Dental Mfg. Co.....	18
Sanitol Company.....	8, 4
Shenkenberg, Eugene, Racine, Wis.....	37
Smith, Lee & Son, Pittsburgh, Pa.....	10
Somnoforme, E. de Trey & Sons, New York.....	62, 63
Standard Amalgam.....	12
Standard Dental Mfg. Co., New York.....	30
Sterlon White Alloy Co., Chicago, Ill.....	36
Strout, J. M., Portland, Maine.....	22
Sup-Re-Nol.....	42
Tenax.....	41
Teague Supply Co., Augusta, Ga.....	51
Twentieth Century Teeth.....	52 to 61
University of Illinois.....	19, 20
Webster Dental Co., Buffalo, N. Y.....	38
Wedgelock Tooth Co.....	18, 26, 46
Windsor Dental Company, Chicago.....	16
Williams, J. A.....	37 to 39

A Mammoth Exhibit of Dental Manufactures.

Auditorium, Chicago, March 27, 28, 29, 30, 1906.

This will be an exhibition of manufactures, by the manufacturers, for the dentists. It will present all that is new in inventions and improvements.

You will not be asked to listen to papers or discussions, but the leading manufacturers will have expert demonstrators present who will take pleasure in showing the manipulation of each appliance and the methods of each operation. There will be a large number of these continuous demonstrations, at which you may pause when you like, as long as you like and where you may ask what questions you will.

There will be no admittance fee. You are cordially invited to make yourself perfectly at home and to look and ask and learn about what interests you. Everywhere your questions will meet with courteous and intelligent responses.

There will be no restrictions as to admission—if you are a dentist. Whether you are a member of a dozen societies or none, we are preparing to act as your hosts and we want to see you.

Mark off the dates NOW. Resolve to be present and keep your resolve. Details as to hours of opening and closing, hotel accommodations and rates and other matters of interest will be made known in these pages later. But mark off the dates before you forget.

March 27, 28, 29, 30, 1906.

